

REPORT
OF
RAILROAD COMMISSIONERS
VERMONT
—
1890

Vermont Public Service Commission

SECOND BIENNIAL REPORT

—OF—

THE BOARD

—OF—

RAILROAD COMMISSIONERS

OF THE

STATE OF VERMONT,

June 30th, 1888, to June 30th, 1890.

.....

BURLINGTON:
THE FREE PRESS ASSOCIATION,
1890.

CONTENTS.

	PAGE.
Commissioners' Report, Part I.....	1-46
Sketches and Inspections, Part II.....	47-122
Accidents, Investigations and Inquiries into, Part III.....	123-200
Complaints, Petitions and Decisions, Part IV.....	201-292
Annual Returns of Railroad Companies, Part V.....	293-696
Railroad Laws, Appendix.....	i-lxxxvii
Index to Railroad Laws.....	xcv-xcv
General Index.....	xcvi-civ

PART I.

COMMISSIONERS' REPORT.

BOARD OF RAILROAD COMMISSIONERS.

SAMUEL E. PINGREE, Chairman, Hartford.

EBENEZER J. ORMSBEE, Brandon.

TRUMAN C. FLETCHER, St. Johnsbury.

ALFRED E. WATSON, Clerk, Hartford.

STATE OF VERMONT.

COMMISSIONERS' REPORT.

To the General Assembly of the State of Vermont :

The Board of Railroad Commissioners respectfully submits its Second Biennial Report :

The Commissioners, as a Board, have exercised the control and direction of all the business which has come before them for action, and, in some instances of their own motion, have investigated and disposed of matters appearing to require their attention without waiting for complaint to be preferred.

All complaints and requests presented have been duly examined and decided, or adjnsted to the satisfaction of the parties by correspondence without trial and publication, so far as the same have been of any interest to the public and within the jnrisdiction of the Board.

A review of the work of the Board for the last two years shows that 27 cases have come before it for its action and decision, in most of which public hearings have been held on notice to the complainants and the railroad companies; and, in every case decided adversely to the corporation, there has been a ready acquiescence on its part in carrying out the recommendations of the Board.

In some cases the complaints have been conceded to be just and have been remedied through correspondence with-

out trial, and in a few they have been withdrawn by the complainants, upon fuller knowledge of the facts, without being heard.

Three have been dismissed, in whole or in part, being unsustained by sufficient proofs or for want of jurisdiction.

The law requires the Board to include in its Biennial Report a record of all its proceedings, and the same may be found in Parts II, III and IV.

All complaints, petitions and requests preferred to the Board and the answers thereto of the Company complained of, or a statement embodying the same, with the full statement and recommendation or order of the Board will be found in Part IV of this report.

COMPLAINTS AND PETITIONS, HEARINGS AND DECISIONS.

All complaints and petitions, important or otherwise, have been entertained and disposed of, upon the law and equities of each case, when found within the jurisdiction of the Board; and, in non-jurisdictional cases, the Board has suggested the proper remedy, and offered its aid in presenting the question to the Interstate Commerce Commission for its action, or has suggested the proper remedy through the State courts.

In some cases all questions of jurisdiction have been waived by the corporation, and the same have been disposed of by the Board.

In some, the serving of a copy of the complaint has been found to be the first notice that the officers of the corporation have had of the existence of the grievance complained of, and, in such cases, the mere calling their attention to the

same, through the Board, has generally been sufficient to insure the remedy sought.

For this reason less public hearings have been found necessary than otherwise would have been.

In the determination of these cases the Board has undertaken to set out in the report of each case the statement of the facts appearing upon trial, and its deductions and conclusions thereon, settling each case upon its own merits, without formulas or precedents to bind it, and trying to do equity between the parties where it did not appear before.

The existence of a tribunal to which parties may appeal for relief in cases of real or supposed grievances, has an influence upon the management of the railway interests of a State to avoid causes of complaints, which is quite as potent as the hearing and deciding of causes presented.

ACCIDENTS.

Accidents, whether resulting in loss of life or not, have been inquired into by some member of the Board—generally by taking testimony and submitting the case to the full Board,—and the same have then been investigated by the Board, upon statutory notice to the railroad company, and the State's Attorney of the County where the same occurred, and its report made public, except in those cases where, upon preliminary inquiry, it appeared that no public interest could be conserved by such investigation.

These exceptional cases were found to be numerous during the first two years of the existence of the Commission, but the law required a public investigation in the case of all accidents resulting fatally to any person. It was deemed in several cases which came up and were publicly investi-

gated that the expense of the proceedings was not called for in that class of cases where, upon collation of testimony and proofs by a single member of the Board acting *ex parte*, it was manifest to the Board that no possible blame could attach to the railway company or its employes.

The Board, therefore, recommended at the last session of the General Assembly, the enactment of Act No. 25 of the Laws of 1888, authorizing the Board, in its discretion, to make inquiry, in the first instance, in all accident cases, and to follow the same with a public investigation upon due notice, in those cases only where the public good should, in its judgment, require.

Later experience has confirmed the wisdom of this change in the statute, and the formality of several investigations, where the cause of the accident was clearly through the fault of the victim, or without possible blame on the part of the company or its agents or servants, has been avoided, since the passage of the Act referred to.

The record of the investigation reports and accident inquiries of the Board in accident cases is referred to in Part III of this Report.

The total number of accidents which have occurred upon the railroads in this State between July 1, 1888, and July 1, 1890, so far as ascertained, is as follows :—

Fatal accidents,.....	72
Accidents not resulting fatally,.....	66
Total casualties,.....	138

These casualties may be divided into three leading classes as follows :—

PASSENGERS.

Killed,.....	5
Injured,.....	14
Total.....	19

EMPLOYEES.

Killed,.....	33
Injured,.....	35
Total,.....	68

ALL OTHER CLASSES.

Killed,.....	34
Injured,.....	17
Total,.....	51

The latter class includes 39 accidents to trespassers, of whom 27 were killed and 12 injured.

The various causes of these accidents and the classes to which the victims of the same belong, are presented in the following tables :

ACCIDENTS, JULY 1st, 1888, TO JULY 1st, 1889.

CAUSES OF ACCIDENTS.	PASSENGERS.		EMPLOYEES.		OTHERS.		TOTAL.	
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
Highway Crossings.....	3	--	--	3	4	3	4	3
Getting on or off trains or engines in motion.....	--	--	7	4	--	2	3	3
Falling from trains,—engines or cars.....	--	1	2	4	--	--	7	7
Coupling and uncoupling cars.....	--	1	--	1	--	--	2	4
Struck by depot awning and coupling pin.....	--	--	--	2	--	--	--	2
Loading or unloading cars.....	--	--	1	1	--	--	1	1
Foot caught in switch or frog rail.....	--	--	3	--	--	--	3	--
Hand or push car.....	--	1	--	--	--	--	--	1
Rear collision.....	--	--	1	--	--	--	1	--
Striking covered bridge.....	--	--	3	--	7	2	10	2
Walking or being on the track.....	--	--	1	1	--	--	1	1
Deraiment by misplaced switch.....	--	--	--	--	--	--	--	--
Totals.....	3	3	18	16	11	7	32	26

ACCIDENTS, JULY 1st, 1889, TO JULY 1st, 1890.

CAUSES OF ACCIDENTS.	PASSENGERS.		EMPLOYEES.		OTHERS.		TOTAL.	
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
Highway Crossings.....	..	..	..	..	4	2	4	2
Getting on or off trains or engines in motion.....	1	1	2	..	1	1	4	2
Falling from trains, engines or cars.....	..	..	9	5	1	..	10	5
Coupling and uncoupling cars.....	..	..	1	2	..	..	1	2
Hand-car.....	..	..	..	..	..	1	..	1
Wash-out of road-bed.....	..	8	..	..	..	..	..	8
Rear collision.....	..	..	..	6	..	..	..	6
Head collision.....	1	2	2	3	..	..	3	5
Walking or being on track.....	..	..	1	3	17	6	18	9
Totals.....	2	11	15	19	23	10	40	40

SUMMARY OF ACCIDENTS.

JULY 1, 1888 TO JULY 1, 1889.			JULY 1, 1889 TO JULY 1, 1890.		
Total Casualties.	Fatal.	Ratio Per ct.	Total Casualties.	Fatal.	Ratio Per ct.
All classes...58	32	55	All classes...80	40	50
Passengers .. 6	3	50	Passengers .. 13	2	15
Employes .. 34	18	53	Employes...34	21	62
Other classes 18	11	61	Other classes 33	23	70

ACCIDENTS TO TRESPASSERS.

JULY 1, 1888 TO JULY 1, 1889.				JULY 1, 1889 TO JULY 1, 1890.			
Killed.	Injured.	Total Killed and Injured.	Per ct. Fatal.	Killed.	Injured.	Total Killed and Injured.	Per ct. Fatal.
8	4	12	66½	19	8	27	70½

RAILROAD CONSTRUCTION.

During the two years ending June 30, 1890, the new railroads constructed in the State are as follows:—

Upper Coos Railroad, from New Hampshire and Vermont State line at West Stewartstown, N. H., through Canaan, Vt., to Canada line, 1.97 miles, with a quarter of a mile of sidings;

Barre Railroad, from north of Barre village to the granite quarries south of the village, 10 miles, with 10 miles of spur tracks and sidings;

Barre Branch Railroad, from Barre Junction to connect with the Barre Railroad north of Barre village, 3.8 miles.

MILEAGE OF RAILROADS.

The total mileage of railroads within the State is now 952.335 miles of main line (including 8.69 miles of double track) and 180.03 miles of sidings, showing an increase during the biennial period of 15.77 miles of main line track, and 10.25 miles of sidings.

RAILROADS.		Main Line in Vt.	Sid- ings, etc., in Vt.
Boston and Maine System.	Barre.....	10.00	10.00
	Bennington and Glastenbury.....	8.97	1.00
	Bennington and Rutland.....	58.91	5.25
	Connecticut and Passumpsic Rivers.....	110.30	23.35
	St. Johnsbury and Lake Champlain.....	131.50	15.09
Canadian Pacific System.	Newport and Richford.....	21.00	1.00
	Central Vermont.....	178.80	59.70
Central Vermont System	Addison.....	15.60	1.00
	Brattleboro and Whitehall.....	36.00	2.00
	Burlington and Lamoille.....	26.00	2.00
	Missisquoi Valley.....	28.00	2.25
	Montpelier and White River.....	13.50	.25
	New London Northern.....	10.00	1.50
	Rutland.....	119.70	26.00
Connecticut River System.	Clarendon and Pittsford.....	10.00	3.00
	Ashuelot.....	.71	.30
Delaware and Hudson System.	Vermont Valley (including double track, 2.50 miles).....	26.50	1.30
	Rensselaer and Saratoga.....	36.65	11.76
	Fitchburg, double track, 6.49+6.19 miles.....	12.68	.50
Grand Trunk System.	Atlantic and St. Lawrence.....	30.62	4.93
	Hoosac Tunnel and Wilmington....	3.00	1.00
	Lebanon Springs.....	5.925	.85
Maine Central System.	Upper Coos.....	1.97	.25
	Montpelier and Wells River (in- cluding Barre Branch, 3.80 miles)	42.00	5.00
	Woodstock.....	14.00	.75
		952.335	180.03

ANNUAL RETURNS AND STATISTICAL TABLES.

Returns have been received from fifteen different companies each year. See Part V.

Statistical tables showing deductions from the annual returns of railroad companies to the Board may be found elsewhere in Part I of this Report. It will be noticed, however, that said returns (of several of the railroad companies) include business largely transacted in other States, and in the Province of Canada; and, therefore, the data derived from them is of less value for comparison and reference than it otherwise would be.

These tables are also necessarily incomplete, as the returns of the various corporations are not all based upon the same methods of keeping railroad accounts.

The effort being made by the Interstate Commerce Commission to bring about uniformity in railroad laws and methods of accounting and making returns to the State Boards of Railroad Commissioners and the Interstate Commerce Commission, is looked to to remedy this inconvenience, which deprives these returns of much of their value for comparison and valuable deductions, from year to year.

DIVIDENDS.

Only five companies have reported to the Board the payment of any dividends during the past two years, viz: Atlantic and St. Lawrence Railroad Company, under lease to the Grand Trunk Railway Company, a dividend of 6%, both in 1889 and 1890; Bennington and Rutland Railway, a dividend of 4% in 1889, and 1% in 1890; Fitchburg Railroad, a dividend of 2% in 1890; New London Northern Railroad, under lease to the Central Vermont Railroad Company, a dividend of 7%, both in 1889 and 1890; Vermont Valley Railroad, operated by the Connecticut River Railroad Company, a dividend of 6%, both in 1889 and 1890.

CAPITAL STOCK, BONDS OUTSTANDING, CURRENT LIABILITIES,
AND COST OF ROAD AND EQUIPMENT.

The following table shows the capital stock, bonds outstanding, current liabilities, and cost of road and equipment for the several railroads named, for 1890:

1890.

RAILROADS.	Capital Stock	Bonds Outstanding.	Current Liabilities.	Cost of Road and Equipment.
Atlantic and St. Lawrence (leased to Grand Trunk Railway Company).....	\$5,484,000	\$3,000,000	26,532 43	\$ 8,484,000 00
Bennington and Rutland.....	1,000,000	475,000	1,803,252 74	1,665,350 00
Central Vermont.....	60,000	.....	127,507 05	133,488 48
Clarendon and Pittsford.....	20,775,100	18,534,600	1,719,181 14	37,258,914 02
Fitchburg.....	50,000	.....	64,369 46	*110,184 79
Hoosac Tunnel and Wilmington.....	2,000,000	2,000,000	6,345 21	.....
Lebanon Springs.....	800,000	.....	10,275 24	.....
Montpelier and Wells River.....	.....	.....	.....	.....
New London Northern (leased to Central Vermont Railroad Company).....	1,500,000	1,499,500	115,956 92	3,201,757 16
Rensselaer and Saratoga (leased to Delaware and Hudson Canal Company).....	8,831,900	2,000,000	.....	.....
St. Johnsbury and Lake Champlain.....	3,598,250	641,000	1,157,415 98	4,679,419 24
Upper Coos (leased to Maine Central Railr'd)	350,000	350,000	.....	849,981 88
Vermont Valley (operated by Connecticut River Railroad Company).....	1,000,000	800,000	45,032 75	1,045,438 02
Woodstock.....	260,000	250,000	32,858 90	*510,000 00

*Equipment is leased.

OPERATING EARNINGS AND EXPENSE, INCOMES, ETC.

The following table shows the gross earnings from operation, operating expenses, income from operation, income from other sources, deductions from income by reason of interest, taxes, rentals, etc., and net income or deficit of the several railroads,—from which alone returns have been received,—for 1890 :—

1890.

RAILROADS.	Gross Earnings from Operation.	Operating Expenses.	Income from Operation.	Income from Other Sources.	Deductions from Income, Taxes, Rentals etc.	Net Income.	Deficit.
Atlantic & St. Lawrence (Leased to Grand Trunk Railway Co.)	\$1,063,757 63	\$ 825,852 91	\$ 237,904 72		\$ 498,946 21		\$ 261,041 49
Burlington and Rutland	236,144 42	169,108 12	67,036 30		37,592 36	\$ 20,443 94	
Central Vermont	3,090,473 19	2,385,864 53	804,608 66	\$ 10,775 00	803,432 29	11,951 37	
Clarendon and Pittsford	17,096 68	9,357 51	7,739 12		341 97	7,397 15	
Connecticut and Passumpsic Rivers (Leased to Boston and Maine Railroad)	874,029 82	603,854 25	270,175 57	12,569 77	17,919 42	264,825 92	
Fitchburg	6,256,815 38	4,350,007 96	1,906,807 37	2,718 00	1,254,994 32	654,531 05	
Hoosac Tunnel and Wilmington.	18,420 79	9,895 50	8,525 29		7,530 72	994 57	
Lebanon Springs	61,888 96	64,456 49	*2,567 53	6,011 20	570,14	2,873 58	
Montpelier and Wells River	112,304 61	105,132 54	7,173 07		25,375 00	18,202 93	
Rensselaer and Saratoga (Leased to Delaware and Hudson Canal Company)	2,622,865 85	1,501,982 40	1,120,883 45	6,681 50	1,064,160 06	63,404 89	
St. Johnsbury and Lake Champlain	396,467 43	376,730 47	19,736 96		56,498 46	36,761 50	
South Eastern, (operated by Canadian Pacific Railway Co.)	94,442 64	76,826 45	17,616 19				
Vermont Valley (operated by Connecticut River Railroad Company)	193,085 83	108,175 42	84,910 41	45,490 10	51,322 48	79,078 03	
Woodstock	26,886 44	16,654 79	10,231 65	1,216 04	17,500 00		6,052 31

* Deficit.

LOCAL PASSENGER FARES.

Through the practice of all the principal railroad companies of the State of issuing mileage tickets or books, at greatly reduced rates, many of the citizens of the State are afforded rates of fare believed to be nearly or quite as low as can be afforded by the carrier, and, so far as is known to the Board, generally satisfactory to the passenger. But there is a large class which includes those who, for want of pecuniary means, and for other good and sufficient reasons, are unable to share in the benefit of these reduced rates, but are compelled to buy a single ticket and pay therefor 3 to 4½ cents per mile—a rate or fare almost equal to the stage coach rates of fifty years ago. It is needless, perhaps, to remark that this latter class includes all who are the least able to pay. The practice of selling these mileage tickets at these reduced rates is well sustained by the courts as not being obnoxious to statute law prohibiting discrimination, and indeed this practice is to be commended and encouraged, and the Board entertains the hope that some of the limitations and restrictions now attached to a portion of them may be eliminated, and thereby encouraging, and, as the Board believes, securing, a still freer use of them. And it also entertains the hope that all of the railroad companies will see their way clear at an early day to make such reductions in local passenger rates as to remove this alleged inequality, and this in the interest of those of their patrons who are, for reasons above stated, unable to avail themselves of the present reductions.

PASSENGER REVENUE AND FARES.

The following tables show the number of passengers carried, total passenger revenue, average amount received from each passenger per mile, and the estimated cost of carrying each passenger per mile, for the several railroad companies named, which alone have made returns, for the years 1889 and 1890 :—

RAILROADS.	Number of Passengers Carried.	Total Passenger Revenue.	Average Receipts per Pas- senger per Mile.	Estimated Cost of Car- rying each Passenger per Mile.
			Cents.	Cents.
Atlantic and St. Lawrence, (leased to Grand Trunk Railway Com- pany).....	313,004	\$ 272,778 87	2.620	-----
Bennington and Rutland.....	175,371	98,279 70	2.759	-----
Central Vermont.....	1,175,591	860,260 73	2.500	2.100
Connecticut and Passumpsic Riv- ers, (leased to Boston and Maine Railroad).....	295,674	303,843 70	2.708	1.962
Fitchburg.....	5,755,475½	1,712,885 78	1.960	1.799
Hoosac Tunnel and Wilmington	7,705½	3,141 79	4.830	-----
Lebanon Springs.....	44,947	16,103 97	3.000	3.533
Montpelier and Wells River.....	49,817	34,530 36	3.500	-----
Rensselaer and Saratoga, (leased to Delaware and Hudson Canal Company).....	2,316,388	850,271 84	2.401	1.588
St. Johnsbury and Lake Cham- plain.....	107,719	66,121 35	2.750	-----
*Upper Coos.....	11,114	7,049 72	4.800	1.045
Vermont Valley, (operated by Con- necticut River Railroad Com- pany).....	114,432	77,580 92	3.193	2.412
Woodstock.....	16,250	9,999 38	3.648	-----

* For six months.

1889.

1890.

RAILROADS.

	Number of Pas- sengers Carried.	Total Passenger Revenue.	Average Re- ceipts per Pas- senger per Mile.	Estimated Cost of Carrying each Passenger per Mile.
Atlantic and St. Lawrence (Leased to Grand Trunk Railway Company).....	345,659	\$ 273,498 14	Cents. 2.520	Cents. 2.800
Bennington & Rutland.....	191,994	100,864 45	2.618	-----
Central Vermont.....	1,263,253	899,439 44	2.500	1.900
Connecticut & Passumpsic Rivers (leased to Boston & Maine Railroad).....	338,058	326,952 54	2.546	1.828
Fitchburg.....	5,895,202	1,755,764 77	1.910	1.624
Hoosac Tunnel & Wilmington.....	9,506	8,852 27	4.328	2.785
Lebanon Springs.....	62,075	19,470 11	3.000	2.566
Montpelier & Wells River.....	74,516	42,474 39	3.454	-----
Rensselaer & Saratoga (leased to Delaware & Hud- son Canal Company).....	2,268,173	853,897 50	2.403	1.514
St Johnsbury & Lake Champlain.....	126,020	71,508 96	2.952	4.229
South Eastern (operated by Canadian Pacific Rail- way Company).....	-----	29,988 98	-----	-----
Vermont Valley (operated by Connecticut River Railroad Company).....	116,402	80,292 34	3.257	2.125
Woodstock.....	16,774	9,980 90	3.900	-----

FREIGHT REVENUE AND RATES.

The following tables show the number of tons of freight carried, total freight revenue, average amount received for carrying each ton of freight per mile, and the estimated cost of carrying each ton of freight per mile, for the following named railroad companies, which alone have made returns, for the years 1889 and 1890 :

1889.

RAILROADS.	Number of Tons Freight Carried.	Total Freight Revenue.	Average Re- ceipts per Ton per Mile.	Estimated Cost of Carry- ing Freight per Ton per Mile.
			Cents.	Cents.
			Local	Through
Atlantic and St. Lawrence (leased to Grand Trunk Railway Co.)...	955,920	\$751,532 38	1.470	0.540
Bennington and Rutland.....	128,845	94,561 68	2.331	-----
Central Vermont.....	2,325,779	1,766,929 26	0.830	0.550
Conn. and Pass. Rivers (leased to Boston & Maine Railroad).....	601,837	435,254 65	1.254	0.897
Fitchburg.....	3,448,160	3,508,280 87	1.015	0.777
Hooaac Tunnel and Wilmington.	13,334 $\frac{1}{2}$	12,238 08	9.000	-----
Lebanon Springs.....	39,777	38,609 35	3.522	3.870
Montpelier and Wells River.....	58,817	61,830 19	3.500	-----
Rensselaer and Saratoga (leased to Del. & Hudson Canal Co.)...	2,147,871	1,410,551 16	1.260	0.838
St. Johnsbury & Lake Champlain	363,923	285,986 67	1.274	1.500
*Upper Coos.....	17,887	12,740 60	5.390	2.390
Vermont Valley (operated by Con- necticut River Railroad Co.)....	399,298	96,189 03	1.038	0.619
Woodstock.....	13,533	14,796 30	9.500	-----

*For six months.

1890.

RAILROADS.	Number of Tons Freight Carried.	Total Freight Revenue.	Average Re- ceipts per Ton per Mile.	Estimated Cost of Carry- ing Freight per Ton per Mile.
			Cents.	Cents.
Atlantic and St. Lawrence, (leased to Grand Trunk Rail- way Company).....	923,104	\$ 748,745 20	Local 1.410 Through 0.580	0.500
Bennington and Rutland.....	207,978	120,415 27	1.457	-----
Central Vermont.....	2,806,243	2,070,810 56	0.750	0.570
Clarendon and Pittsford.....	64,348	17,096 63	-----	-----
Connecticut and Passumpsic Rivers, (leased to Boston and Maine Railroad).....	659,727	489,158 14	1.041	0.785
Fitchburg.....	3,971,318	3,880,251 94	0.995	0.733
Lebanon Springs.....	45,779	37,390 94	2.400	3.120
Montpelier and Wells River.....	64,718	63,548 14	3.166	-----
Rensselaer and Saratoga, (leased to Delaware and Hud- son Canal Company).....	2,625,253	1,020,184 61	1.137	0.676
St. Johnsbury and Lake Champlain.....	541,299	310,689 84	1.190	1.051
South Eastern, (operated by Canadian Pacific Railway Company).....	-----	58,467 43	-----	-----
Vermont Valley, (operated by Connecticut River Railroad Company).....	457,618	101,332 11	.958	0.527
Woodstock.....	13,802	15,469 46	.800	-----

WAGES OF RAILROAD EMPLOYEES.

The following tables show the price paid per day by each railroad company in the State (so far as returns have been made on the subject) to its employees, and an average of the daily compensation paid by all such railroad companies to each class of employees.

DAILY COMPENSATION OF EMPLOYEES.

For the year ending June 30th, 1889.	RAILROAD COMPANIES.														
	General Office	Station Agents.	Other Men.	Engineers.	Firemen.	Conductors.	Other Trainmen.	Machinists.	Carpenters.	Other Shopmen.	Section Firemen.	Other Trackmen.	Switchmen and watchmen	Telegraph Operators	Employees and Laborers.
Bennington & Rutland.....	\$ 71	\$1 30	\$1 30	\$3 00	\$1 60	\$2 47	\$1 47	\$2 04	\$2 16	\$1 45	\$1 57	\$1 10	\$1 17	....	\$1 30
Central Vermont.....	2 08	1 48	1 05	2 45	1 50	2 14	1 27	1 73	1 42	1 25	1 56	88	1 12	\$1 48	1 30
Connecticut and Passumpsic Rivers (leased to Boston and Maine Railroad).....	.....	1 30	1 47	2 75	1 61	2 18	1 45	1 87	1 67	1 69	1 59	1 15	1 09	1 59	1 54
Delaware & Hudson Canal.....	1 76	1 83	1 43	3 75	2 12	2 83	1 89	1 97	1 76	1 63	1 65	1 10	1 87	1 93	1 33
Fitchburg.....	2 07	1 93	1 74	3 47	2 12	2 68	1 84	2 06	2 08	1 85	2 33	1 48	1 35	1 66	1 89
Hoosac Tunnel & Wilmington.....	1 66	1 60	1 21	2 83	1 33	1 47	.....	.....	.....	.....	.....	.....	.....	.....	.....
Lebanon Springs.....	1 97	1 25	2 20	2 28	1 50	2 17	1 20	1 89	2 06	.....	1 33	1 10	1 20	80	.....
Montpelier & Wells River.....	2 11	99	1 26	2 29	1 32	2 25	1 25	.....	2 00	2 00	1 50	1 20	1 05	.....	.....
St. Johnsbury & Lake Champlain	2 18	1 32	1 02	2 70	1 50	2 05	1 55	2 25	1 73	1 23	1 55	1 20	77	1 50	*3 12
Upper Coos (leased to Maine Central Railroad).....	96	1 27	.....	2 75	1 40	2 44	1 40	2 00	2 50	2 31	1 57	1 20	1 15	.....	1 57
Average compensation of all roads	1 72	1 42	1 19	2 82	1 60	2 26	1 48	1 95	1 93	1 68	1 63	1 16	1 14	1 49	1 72

*Stone mason included.

DAILY COMPENSATION OF EMPLOYEES.

For the year ending June 30, 1890.															
RAILROAD COMPANIES.															
General Office Clerks.	Station Agents.	Other Station Men.	Enginemen.	Firemen.	Conductors.	Other Trainmen.	Machinists.	Carpenters.	Other Shopmen.	Section Foremen.	Other Trackmen.	Switchmen and Watchmen.	Telegraph Operators.	Employees and Laborers.	
Bennington and Rutland.....	.....	1.41	1.41	3.00	1.62	2.60	1.45	2.04	2.16	1.45	1.57	1.10	1.15	1.15	1.17
Central Vermont.....	2.06	1.58	1.06	2.56	1.45	2.12	1.35	1.79	1.33	1.40	1.58	.86	1.27	1.40	1.31
Clarendon and Pittsford.....	.....	.....	2.65	1.35	.....	1.75	.....	.....	.....	.....	.....	1.75	1.20	.....	.....
Connecticut and Passumpsic Rivers, (leased to Boston and Maine Railroad).....	.....	1.37	1.38	2.08	1.58	2.17	1.56	1.93	1.75	1.54	1.65	1.18	1.24	1.46	1.21
Delaware and Hudson Canal.....	1.62	1.71	1.40	3.88	2.24	3.10	2.14	1.98	1.85	1.67	1.45	1.10	1.12	1.80	1.43
Fitchburg.....	1.91	1.84	1.63	3.69	2.66	2.69	1.82	2.32	2.08	1.81	2.35	1.45	1.45	1.70	1.87
Hoosac Tunnel and Wilmington.....	1.66	1.80	1.78	2.02	1.11	.89	.....	.....	.....	.....	.....	.....	.....	.....	.....
Lebanon Springs.....	1.70	1.33	.33	2.58	1.50	2.16	1.26	2.03	1.75	.....	.....	1.10	1.11	.80	.....
Montpelier and Wells River.....	2.11	1.01	1.42	2.29	1.82	2.25	1.25	1.87	1.62	1.50	1.30	1.34	.....	.....	.....
St. Johnsbury and Lake Champlain.....	.....	1.30	1.27	2.76	1.50	2.00	1.57	2.50	1.65	1.27	1.50	1.20	1.00	1.40	.....
Average compensation of all roads.....	1.84	1.48	1.30	2.81	1.53	2.23	1.57	2.18	1.77	1.51	1.61	1.17	1.19	1.40	1.40

PHYSICAL CONDITION OF ROADS.

In Part II under the head of Inspections will be found a detailed statement of the condition of the several railroads of the State.

The annual inspections of the same have been made as required by law, the same being made in the months of June, July and August each year.

The general condition of the road-bed on the trunk lines and on some of the smaller roads has been improved since the inspections began.

DEPOTS AND BRIDGES.

In the bridges and station houses there has been a steady progression on all the main lines, of rebuilding and repairing, until most of the points of large passenger traffic are provided with commodious and tasteful depots, which are furnished with all the conveniences required by the public, and the same are neatly kept.

The new bridges constructed in the biennial term between June 30, 1888, and June 30, 1890, are made to replace those of lighter character which were adequate to sustain the strain of the lighter traffic of many years ago, and are to meet the exigencies of the heavier traffic and locomotives of the present day.

Some are replaced with riveted lattice iron and others with the wooden Howe truss, or the pin lattice type, and all save one of the new or rebuilt structures conform in construction to Sec. 3418 of the Revised Laws, relating to railway bridges.

Many bridges which have not been rebuilt or replaced by stronger structures have been strengthened by additional

chords, truss timbers, and rods, or their straining power has been supplemented by arches or piers, and no accident has occurred in the State during the biennial term on account of any structural weakness or defect of a railroad bridge.

There are, however, several bridges yet remaining on the lines of the early built roads of the State which were built when the roads were built over forty years ago. The manner in which the original design and pattern of these structures have been supplemented,—by arches in some cases, by “horsing” up with wooden piers in others,—supports operating upon a different mechanical principle from the device upon which they were originally built, seemed to the Board to call for an expert examination of such bridge structures as were made up of two or more different principles of bridge architecture,—since it was found impossible to determine satisfactorily which of the combined devices sustained the strain, or whether the combinations did not, in some cases, weaken instead of strengthen the carrying power of the structure.

The Board therefore engaged Professor Robert Fletcher, of the Thayer School of Civil Engineering, to examine and report upon the condition and safety of certain bridges which had been made the subject of complaint as being unsafe, or were so considered by the Board, and his report being submitted to the officers of the respective companies with recommendations of the Board in the premises insured improvements in the same.

On the annual inspection of the roads and bridges in 1889, H. A. Hitchcock, a civil engineer, and now a professor in the Thayer School of Civil Engineering, was employed by the Board to accompany it for the purpose of a more criti-

cal examination of this class of bridges in the State, and, with a view of having those inspected and reported to the Board concerning the strength and safety of which, for the heavier engines and traffic of the present day, there appeared to be any doubt.

The summary report of Prof. Hitchcock upon this class of combination bridges is inserted under the head of "Special Inspection Reports" in Part II of this Report, and to it the attention of the railroad companies is again directed.

The Board is able to report in conclusion under this head that with the exception of the Rutland, the Addison, and the Bennington and Glastenbury roads, the physical condition of the railroads of the State has undergone a steady and marked improvement; and that no serious accident has occurred, caused by defective rails, impaired road-bed, unsuitable bridges or deficient equipment.

The old iron rails upon the lines of any considerable traffic have been wholly replaced by steel of from 56 to 72 pounds weight; the track systems on the new or repaired bridges are of the improved pattern, having ties from 4 to 8 inches asunder with gaurd timbers gained deeply on each tie and securely bolted, so that a derailed car can be kept in line across the bridge with comparative safety; and the noted improvement in the depots, platforms, fences, cattle guards, crossing signs, and the appearance of the road-beds, indicate that the old ways are being superceded by the new, and further and continued improvements are assured and being made by the several managements the present season. There is still room for these improvements to continue, but the marked character of what has taken place since the establishment of the Commission, and the readiness of com-

pliance with the recommendations in this direction by the companies, become a pleasure to note.

FROG, SWITCH AND GUARD-RAIL BLOCKING.

The Board is able to report an early and substantial compliance with the provisions of No. 22 of the Acts of 1888, requiring the frogs, switches and guard-rails to be blocked with wooden wedges to prevent the feet of railroad employes from being caught therein, so that the work was certified to by the clerk of the Board upon several of the roads of the State at the time of the first inspection after the law became operative, and upon some of them before.

This Act was of great importance to the prevention of accidents and the saving of life.

No accident has occurred since this blocking was done resulting from the feet of employes or others getting fastened between the rails, while of frequent occurrence in past years.

Observation shows that these blocks, especially at points of much business in the railroad yards, soon wear out and must be carefully watched and replaced by new ones; otherwise, being depended upon by the trainman, whose attention is concentrated upon affecting a coupling of the shifting cars, they would become an invitation to danger, rather than a protection to his life and limb.

SWITCH LIGHTS.

The Board has noticed that some of the railroad companies of the State have caused the switches on their main lines to be provided with signal lights, which is a move in the direction of increased safety to night travel. The Central Vermont Railroad and the Canadian Pacific and

Grand Trunk Railways have all their main line switches provided with these safety signals, already, and all the railroads of the State upon which night trains are run should follow the example thus set.

The lights are placed in heavy duplex lanterns, showing a red or green color signal, according as the switch is set right or wrong, and the lanterns stand at the top of the switch standard or upright rod which is so fashioned that no one can change the signal light without also changing the switch. There are many points upon the various railroads of the State where there are switches leading to very dangerous places for a derailment, and where, if a switch should happen to be open, the target could not be seen seasonably to avert a derailment and terrible accident. Switch lights can ordinarily be seen from one-half to three-quarters of a mile by the engineer, and the immediate adoption of them would be a precaution against accident, which no railroad company can afford to delay.

Most railroad companies have a rule requiring engineers to have their machines under control in passing main line switches generally, but the running time of trains is such, that the rule is quite as often recognized in the breach as in the observance of it.

AUTOMATIC FREIGHT TRAIN COUPLERS.

The statistics show that for the year ending June 30, 1889, of the 32,132 persons killed and injured in railway accidents in the United States, 22,000 were employes of the railway companies, and of these a little over 7,000 were the victims of the car coupling accident.

An earnest and organized movement has lately been made by the trainmen of the country to have this fruitful and

frightful cause of accident abolished by National legislation, through the recommendation of the Interstate Commerce Commission.

That Board has given the subject careful consideration with a view to determine the expediency of recommending to Congress such legislation as may compel the early adoption of automatic freight car couplers in place of the link and pin now in general use.

The Boards of Railroad Commissioners of many States, also, at the instance of the Massachusetts Board, joined in a request to the Interstate Board for its action in the same direction.

The subject was discussed at length at the first Conference of the Interstate Commerce Commission and State Boards of Railroad Commissioners, held at Washington, D. C., March 5-7, 1889.

It was agreed by all that the practice of allowing men to step in front of moving cars to guide the link to its place was too dangerous to be tolerated, and that its continuance was a reproach upon the methods of modern car construction, and railroad men.

Nor is the mechanical device a sensible one. It is subject to displacement for a better, as conveniently as were the primitive passenger car couplers for the Miller automatic and others of approved type. It is expensive as well as mechanically defective;—both link and pin are the subject of constant breakage and loss, being not permanently attached.

The process of making up the train is attended by needless waiting, the lower car often hangs heavily upon the higher to the damage of both and the road also. The play caused by the length of the link keeps up an endless con

cussion as the train runs together or becomes taut over the loose slack, and the jerking breaks are of frequent and dangerous occurrence.

By the adoption of some general type of automatic coupler with proper vertical play and draw springs for the interstate traffic of the country, thousands of men could be kept sound annually, who are now being killed or maimed for life.

There are many devices already tested and found adequate to meet the requirements of greater safety. No legislation of a single State can accomplish the end desired effectively.

The railroad companies are as inactive in this without promptings of legislation as they were in the adoption of locomotive steam heating for the safety of human life, a few years ago.

The Master Car Builders' Association has taken the initiative in this work of humanity and adopted, after crucial tests, the "Janney coupler."

The most feasible way of attaining the end sought is to have its beginning in the manufacture of new cars and in the placing of the new draft appliance upon the old ones.

Several roads have already adopted this method of introducing the automatic coupler, noticeably among them the "Pennsylvania," which seldom or never lags in the adoption of a good thing when it can be had.

The necessity of adopting whatever standard of car coupler shall prove itself the best will soon be upon all our roads, for cars will soon cease to be made without the safety device of some automatic coupler, and the necessity of its introduction will invent the needed interchangeableness of standard types.

FREIGHT TRAIN BRAKES.

The automatic freight train brake has already come into use on many of the trunk lines of the country, upon through freight traffic trains.

Its advantages in the ready and steady handling and control of heavy freight trains under the immediate control of the engineer, has introduced a new era in railroad service.

A freight train equipped with this device can be stopped from full speed in running less than its length without shock or detriment to its load or machinery.

Train accidents of all kinds will be greatly diminished as its use becomes more general.

The derailments so destructive to property and often of life among trainmen, by the piling of cars and their stores in wreck, is saved in a large degree by the action of this appliance, since, at once, the air hose becoming disconnected, the brakes are automatically set throughout the train and it is brought to a stop in a few seconds. Besides, the exposure of the men who, with the old hand brake in use, must remain almost constantly on the top of the running trains, by day and night, in storm and heat, running from car to car over snowy and icy roofs, to set or unset brakes, with the other perils incident to the necessities of the hand brake process, by which it is claimed from data that over 4,600 young men are killed or maimed yearly in this country,—will be mainly avoided by the general adoption of this device.

As a life-saving improvement in the service it is second only to the automatic coupler. Heavier trains can be run, and faster; more of them, and more safely; and it is viewed by railroad men as among the most important and promising

in the progress of railroad improvements, both for its economy and its safety to life.

The effort now being made through the Interstate Commerce Commission to invoke Congressional legislation to expedite the introduction of the automatic coupler, freight train brakes, and locomotive steam heating, is resorted to for the obvious reason that State legislation upon the subject might be held to affect only local traffic trains, and would not be practicable in its operation upon those of interstate commerce, which constitutes the great share of the railroad traffic of the country.

The appalling dangers and consequences of the use of the hand-brake, link and pin coupler, and car stoves, and the lagging of some companies, the poverty of some others, and the perverseness of others, preventing their keeping abreast of the leaders who are constantly stretching out toward perfection in railroad equipment, has induced an increasing agitation of this subject, until it was formally presented to the Conference of Railroad Commissioners, at Washington, in March, 1889, and the following resolution was unanimously adopted, to wit :

“ WHEREAS, Thousands of railroad employes every year are killed or injured in coupling or uncoupling freight cars used in interstate traffic and in handling the brakes of such cars, and most of these accidents can be avoided by the use of uniform automatic couplers and train brakes; and

“ WHEREAS, The success and growth of the system of heating cars by steam from the locomotive or other single source, largely depends on the adoption in interstate traffic of an uniform steam coupler ; and

“ WHEREAS, These subjects are believed to be of pressing importance, and within the proper scope of the powers of the Congress of the United States, while attempts on the part of the individual States to deal with them have resulted, and must continue to result, in conflicting regulations:—

“Resolved, That we do respectfully and earnestly urge the Interstate Commerce Commission to consider what can be done to prevent the loss of life and limb in coupling and uncoupling freight cars used in interstate commerce, and in handling the brakes of such cars, and in what way the growth of the system of heating passenger cars from the locomotive, or other single source, can be promoted, to the end that said Commission may make recommendations in the premises to the various railroads within its jurisdiction, and make such suggestions as to legislation on said subjects as may seem to it necessary or expedient.”

And the subject, with an able discussion of its bearings,—life-saving and economic, and the obstacles in the way of an immediate remedy, was submitted to the wisdom of Congress, December last, by the Interstate Commerce Commission, with its able suggestions of methods of procedure in the premises.

HEATING PASSENGER CARS.

In its first Biennial Report the Board set forth a summary review of its efforts in investigating the subject of heating passenger cars by the steam process from the locomotive, and therein stated its conclusions, after careful consideration and observation of the practical workings of the various systems in New England.

It seems unnecessary to re-present the subject here, further than to refer to pages 28 to 40 inclusive of that Report, and to add, that the experience, observation and study of the subject in the last two years have served to confirm and emphasize the statements and conclusions therein expressed.

The Board in its last Report recommended the enactment of a law making it unlawful after November 1, 1889, to heat passenger cars on other than mixed trains by any stove or heater suspended from the car, except in case of accident or other emergency requiring the use of such stoves or fur-

naces with necessary fuel while at rest, and providing also that in special cases the time might be extended for a period of one year from November 1, 1889.

It was believed that the period named in the recommended law would afford to the railroad companies all the additional opportunities for examination and fitting their passenger coaches with the best of the several well approved systems of locomotive steam heating, and would also extend the time, in exceptional cases, to a period when the Legislature would be in session this autumn to provide relief in possible contingencies.

The result was the passage of Act No. 23, Laws of 1888, prohibiting the heating of these cars by any method or heater other than by locomotive steam, without the approval of the Board of Railroad Commissioners, in writing, being first obtained.

The Bennington and Rutland Railway Company, Burlington and Lamoille Railroad Company, Central Vermont Railroad Company—Rutland Division, Delaware and Hudson Canal Company, Fitchburg Railroad Company, St. Johnsbury and Lake Champlain Railroad Company, and the Vermont Valley Railroad Company, are the only ones which have made full compliance with this Act, without seeking extension of time to introduce universal steam heating of trains, so far as the Board is advised.

No company in the State, excepting the Montpelier and Wells River Railroad, has, to the knowledge of the Board, run trains in disregard of this statute, and that company, upon being cited to a hearing to show cause for so doing, made explanation and was granted an extension of time to June 1, 1890.

All other railroads of the State asked for and received permits to use the Baker, Creamer, Johnson or Speare heaters on certain of their trains until June 1, last, on which date all permits, for the use of other than locomotive steam heat methods, expired.

With a view to be assured what progress was being made by the railroad companies of the State towards a perfect equipment of their engines and cars with locomotive steam heating devices, the Board addressed the following circular letter to each company :

STATE OF VERMONT.

BOARD OF RAILROAD COMMISSIONERS.

MONTPELIER, Aug. 6, 1890.

Dear Sir,—The Board of Railroad Commissioners desires to be advised of the methods you have in readiness for use the coming autumn and winter, for warming the passenger, mail, express and baggage cars on your company's road in this State.

Please send answers to the enclosed questions as soon as may be, to Alfred E. Watson, Clerk of Board, Hartford, Vt.

Respectfully,

SAM'L E. PINGREE, *Chairman.*

The several replies received in answer to the foregoing circular letter are on file, but, for the sake of brevity, the information given therein has been tabulated, and is presented in the following table :

RAILROADS.	Locomotives fitted for steam heating.	Not so fitted.	Passenger, mail and baggage cars so fitted.	Not so fitted.	Passenger cars with auxiliary heaters retained.	For hot air heaters.	For hot water heaters.	Wood stoves.	Coal stoves.
Barre.....	9	3	all	5	all	..	..	..	4
Bennington and Rutland.....	..	..	..	..	..	..	..	..	9
Brattleboro and Whitehall.....	..	2	..	4	..	..	..	..	7
Central Vermont.....	34	4	39	63	39	..	..	35	1
Connecticut and Passumpsic Rivers.....	9	5	13	33	1	..	..	16	..
Delaware and Hudson Canal Co.....	72	..	125	..	88	22	66	..	all
Fitchburg.....	90	2	212	..	172	..	..	17	..
New London Northern.....	10	..	19	6	17	..	..	..	..
South Eastern (Canadian Pacific).....	..	..	..	..	..	..	all	..	3
St. Johnsbury and Lake Champlain.....	4	6	3	6	..	..	..	8	30
Upper Coos, (Maine Central).....	60	..	127	41	107	9	11	17	2
Vermont Valley.....	18	1	55	..	28	..	..	..	..
Woodstock.....	..	..	..	2	..	..	..	..	2

VENTILATION.

Among the worst features of public travel on railway trains is the general want of attention to a proper ventilation of the common cars. Many persons are compelled even for short trips to seek the better air of the drawing-room cars solely for this reason.

The ordinary coach is generally fairly provided with reasonable means of ventilation, but the impoverished and foul air so common on many of our trains shows an unwarrantable neglect of a proper oversight and discipline on the part of railroad managers over the trainmen in their employ.

The car sickness, as it is sometimes called, is frequently the effect of the vitiated and foul air which a proper attention to the transoms would obviate.

Doubtless more lives have been shortened or destroyed by breathing the close and foulsome atmosphere of crowded railway coaches on long journeys than from any other single cause.

It cannot be suffered by anyone for a considerable time without shortening the life of its victim.

The injury to health and life is slower and less perceptible, but it is none the less certain than that which comes of wreck and burning.

LIGHTING.

The Board recommended in its last Biennial Report that a statute be enacted, similiar to that existing in Massachusetts and several other states, prohibiting the use of any illuminating oils which will ignite at a temperature of less than 300 degrees Fahrenheit.

While there has occurred in the last two years no known accident caused by fire originating from the lights in use in the cars in this country, yet the danger by fire from this source in case of wreck is still with us in our trains warmed by locomotive steam.

The general adoption of any principle of electric lighting of cars is not yet possible.

Some of the most enterprising roads of New England have introduced it on certain trains, but none claim, in the present state of the art, that it is not an expensive method and too much so to be recommended, except as a luxury upon roads which can afford it.

Some electric device for lighting coaches is sure to come forward at no distant day and probably under conditions of economics and adaptability to the service that will command universal adoption.

None has yet presented itself sufficiently inexpensive and simple to warrant invoking legislation for its introduction at this stage of its experimental and practical tests.

CONSOLIDATIONS.

This subject was treated upon in the former Report of the Board, and its views in reference to it, were then set forth in substance, that while the tendency was in the direction of consolidation, there was no apparent danger to the public, notwithstanding that formerly this tendency or policy was looked upon with apprehension, lest the power of united corporations should endanger the rights of the citizen.

This tendency has continued to the present time, and as far as can be judged from observation is growing rather than otherwise. The Board believes it to be a fact not sub-

ject to question or dispute, that by the consolidations which have taken place in this State within a few years the condition of the railroads has been improved to an extent; travelling facilities and accommodations furnished and provided more nearly satisfactory; more complete and safer train service rendered to the public than would have been possible under other circumstances or under a different policy; and, therefore, the Board sees no occasion for disapproval of this tendency.

Whatever cause there was for the former solicitude on this subject, has, in the opinion of the Board, been removed or fully guarded against by the more perfect and enlarged supervision given to the Railroad Commission, and the power and authority given in the premises to the Interstate Commerce Commission by Congress.

INTERSTATE COMMERCE ACT AND INTERSTATE COMMERCE COMMISSION.

This subject is a fruitful and interesting one to all business men, and has an important—though probably not fully appreciated—bearing on all of the main industries of the country; and is not without importance in considering the subject of State or local traffic, and especially freight traffic; and, therefore, the Board ventures to give it a place in its Report.

The construction put upon the provisions of the Interstate Commerce Act, by the Board which it created, as to the extent of its jurisdiction, is such, that many matters that pertain to railway transportation affecting our citizens are outside of the legal province of this Board. The Board would, however, here say that, in no case (perhaps with a single ex-

ception) has the question of jurisdiction been interposed by the railroad companies in the various matters in which its aid or direction has been invoked during the time covered by this Report, and, in the excepted instance, the question was not insisted upon. It will be seen, however, that a waiver of a jurisdictional question does not enlarge the *legal* powers of the Board. Complaints have been made to the Board as to matters plainly and clearly without its province to inquire into, or, at least, beyond its power to recommend a cure; but it has not in any such case declined to summon the parties before it, believing that the mere fact of having a meeting of the parties and a conference as to the alleged grievance in the presence of the Board would be beneficial, and likely to result in a satisfactory adjustment of the matter or to point the way thereto; and this has proved to be so in every such case.

The published reports of the Interstate Commerce Commission, including its frequent decisions upon questions coming before it, are of great interest and value to the various State Boards, not only by reason of the high, recognized standing of the Commission, but also for the reason that its work is a kindred one, and, in many matters, the work of the National Board may be forwarded by that of the State Board, and *vice versa*. This is so particularly in reference to obtaining uniformity and harmony in classification of freight, railway legislation, and in railway construction.

Appreciating this, the Interstate Commerce Commission in January, 1889, initiated the idea of having a conference of the State and National Boards, and sent out letters of inquiry to the several State Boards, submitting the feasibility and desirability of such a conference, and asking for an ex-

pression of views in reply ; and such answers were received as to result in a call of a convention to be held in Washington, at the office of the Interstate Commerce Commission, on March 5, 1889, at which convention twenty-three States were represented by forty-four representatives ; and the Association of American Railway Accounting Officers was also present by members representing twelve of the important railroads of the country. This conference or convention, presided over by Hon. Thomas M. Cooley, Chairman of the Interstate Commerce Commission, was in session for three days ; and, in the opinion of this Board, the meeting was a very profitable one. Various committees were appointed on the leading subjects (and upon " Railway Legislation " the Chairman of this Board was appointed as a member) with instructions to make reports at the next meeting of the convention. The second like conference was held at the same place on May 28th and 29th, 1890, and this Board was again represented. This meeting was numerously attended, and was even of more interest than the first.

The discussions of the conference disclosed and emphasized the fact that the diversity of opinions of the members from the various States represented, was as great as the diversity of the interests of the various sections of the country ; still, there was no want of harmony ; no want of effort to make progress in several of the more important subjects ; noticably, those of securing uniform legislation by the several States, and the General Government on the subject of " The definition and prohibition of unjust discrimination," " The prohibition of undue and unreasonable preferences and advantages," " The requirement of equal facilities for the interchange of traffic," " The regulation of

the relations between rates of compensation to be allowed for long and short hauls." And the following resolutions, which were reported by the Committee on Railway Legislation, were adopted as reported:—

Resolved :—That the respective States either directly by law, or indirectly through the instrumentality of their Railroad Commissions, should require each railroad corporation subject to their jurisdictions to place upon every freight car hereafter constructed or purchased by it, and upon every freight car owned by it, the coupler or draw-bar of which is repaired by it, an automatic coupler of the Master Car Builders' type at each end of the car.

Resolved :—That a uniform requirement of train brakes on freight cars and of driving-wheel brakes on locomotives is desirable.

Resolved :—That Congress either directly by law or indirectly through the instrumentality of the Interstate Commerce Commission, should take similar action."

The importance of the subjects covered by these resolutions can hardly be overstated; as it is a conceded fact that but little real progress can be made in bringing about the uniform use of automatic couplers on freight cars, and also of train brakes on freight cars, except by National legislation seconded by that of the States: from the fact that it appears from reliable statistics, that principally for the want of these life saving and accident preventing devices, there occurred in the United States for the year ending June 30, 1889, to trainmen, casualties as follows:—

In coupling and uncoupling cars—killed	300,	injured	6,757
Falling from trains and engines—	“	493,	“ 2,011

And to emphasize the importance of the subject of casualties to trainmen generally, and the duty resting upon all who have or may have to do with it, to spare no effort to avoid or lessen these accidents, it is only necessary to state, that

during the same period of time (June 30, 1888, to June 30, 1889,) the number killed in the United States was 1,972, and the number injured 20,030—*an army of over 22,000 killed or maimed in a single year.*

It is due to the Interstate Commerce Commission to say, that it collectively, and by its individual members, evinced the liveliest interest in these subjects, and gave the most positive assurance by remark and otherwise, that it would do all that was reasonably possible to bring about the accomplishment of the sentiments expressed in the foregoing resolutions. It would be profitable to make report in detail as to the doings of these conventions, but want of space will not permit. In the opinion of the Board, much good will come from these conventions, and it is to be hoped that they will continue to be held from year to year; at least, until the more important subjects above referred to have been as successfully disposed of through needed legislation.

There is another subject, and one affecting the material and industrial interests of our people to a large extent, that, in the opinion of the Board, it may be necessary, at least, to bring to the attention of the Interstate Commerce Commission through the opportunity offered by these annual conferences, or otherwise, as it is a subject matter, so far as can be ascertained, in which all or nearly all of the States are alike interested. It is safe to assume, without fear of contradiction, that the easiest and most available avenue to reach the ear and get the attention of the Congress of the United States on the subject of railway legislation is through the Interstate Commerce Commission, and therefore the pertinency of what we here suggest on this subject.

It is said by the Interstate Commerce Commission—see

its report of 1888, page 81,—“The statute (the Interstate Commerce Act) in its requirements of reasonable and just rates, has had in view the protection of the public from extortion and from unfair discriminations. It does not assume that railroad companies will need protection against their rates being unreasonably low, and it has not conferred upon the Commission any power to order an increase of rates which it can see are not remunerative. In general, therefore, it may be said that railroad managers possess the power to destroy the interests not only of their rivals, but of their own stockholders, if they will recklessly make rates that lead to bankruptcy.”

It will, of course, be understood, that the above quoted remarks of the Commission only have reference to rates on interstate traffic, and from them we learn that it (the Commission) is powerless to prevent railroad companies from carrying at rates so low as to be unremunerative.

And again it is well said by the Commission in its aforesaid report of 1888, page 23,—“No State in the exercise of its controlling authority would ever deliberately prescribe for a railroad company a tariff of charges which would fall below a reasonable compensation for the service performed. Abundant reason for abstaining would be found in the fact that it would not be for the interest of the citizens that it should do so.” “The people want good railroad service and they ought to have it at fair rates; but to give them this it is needful that the road be kept in good condition and well equipped; that the trains be sufficiently manned and well handled; that competent servants be employed and fairly paid and that the company avail itself of all new appliances which are calculated to make the service more speedy, more convenient or more safe.”

The propositions above quoted all have the unqualified approval of the Board and are deemed by it to be of value in view of what follows.

The Board has given careful study of the returns of the several railroads of the State, which may be found elsewhere in this report, and especially that part by which we are informed as to their financial condition ; the amount of business done by each, and the *average* freight and passenger rates ; and, judging from these returns, it is difficult to conclude that the remuneration of any of our railroads as a whole, is greater than it should be; and, in fact, it would seem that some of them were receiving less, in view of needed permanent improvements. And whenever it has been suggested that our local rates were too high, the answer has universally been, "we cannot afford to do the business for less," which claim seems to be corroborated and sustained by the returns.

While but few complaints have been made to the Board as to excessive rates, it is impressed that, as a general proposition, they are too high ; that is, upon traffic beginning and ending in this State. And while the revenue of the various roads as given in the returns, is as before stated, not too great as a whole, the Board is, from its knowledge as to local rates and the *average* given in the returns, forced to conclude that the very low rates charged or received in an immense volume of interstate business, very much of which the people of the State have but little or no interest in, is thus transported at the expense of local traffic. In other words, that the local business—that beginning and ending in the State—has to pay and does pay a heavy tribute to the through business ; and this at the expense of the varied local industries, struggling hard for existence ; and to the debarring of others that might otherwise be encouraged to grow

and prosper among us. Now, if the Board is correct in its premises and conclusions, there should be a remedy, but, as will readily be seen, it is not an easy matter to find one, and if found, to apply it. If, as is claimed, much of this through traffic yields but little or no pecuniary return for the service rendered, then it is clear that the through rates are too low, and over which the State Board has no power; and the Board therefore concludes, that if Congress should be invoked to give to the Interstate Commerce Commission, power and authority so to fix rates—even to raise them—on Interstate traffic, that local business may not be unjustly burdened.

The alternative resort would be to give to the State Board the power to fix rates—a power sometimes given, but not always wisely exercised;—a power difficult to execute without danger of doing injustice by reason of the complex and intricate questions involved.

RAILROAD MAP.

The railroad map of the State has been revised to the end of the present biennial term, and includes all new railroads built within the past two years.

RAILROAD LAWS.

In the appendix are published all the public statutes of the State relating to railroads.

CONCLUSION.

In conclusion the Board would say, that while the statute in terms requires it to include in its Biennial Report “a record of all their proceedings under this act,” it has not deemed it necessary to a full compliance with the spirit of

the law to reproduce the full correspondence between it and the parties interested, but only such portions of the same as are necessary to characterize clearly the issues raised upon complaints and petitions and the answers thereto, omitting much correspondence which the clerk's files contain and which has been considered in hearings, and in reporting its decisions. Such parts of the correspondence are published as appear to be required to justify the conclusions reached by the Board in cases considered.

Respectfully submitted,

SAM'L E. PINGREE,
EBENEZER J. ORMSBEE,
TRUMAN C. FLETCHER.

Railroad Commissioners.

ATTEST : ALFRED E. WATSON, *Clerk.*

SEPT. 15, 1890.

PART II.

RAILROAD SKETCHES,
GENERAL AND SPECIAL
INSPECTIONS.

SKETCHES AND GENERAL INSPECTIONS.

BARRE RAILROAD.

Line of Road.—From the southerly terminns of the Barre Branch Railroad, near the northerly limits of Barre village, through the village southerly to the granite quarries on the high hill in the southerly part of the town. Total length of track, including branches to the various quarries and sidings, 20 miles. About one-half of the total length is spur tracks and sidings. Guage, standard. Rails, steel, 60 pounds per lineal yard.

History.—This road was organized under the general law of the State, and its articles of association were filed with the Secretary of State in the autumn of 1888. Construction was at once commenced and the main line was completed and in operation in the summer of 1889, since which some ten miles more of sidings and track to different quarries have been added, and these are being multiplied as the development of new plants requires.

Inspections.—The first inspection of the road was made by the full Board, July 31, 1889, and the second by the full Board, August 19, 1890.

It was found at the last inspection that stone sheds are beginning to be built on the hill near the quarries and many small houses also for the workmen and their families, while at the first inspection there were no work shops or dwellings near the quarries, and the quarrymen went to and returned from their work to the village daily. Therefore, the passenger carriage for workmen and visitors has been considerable, and the last year the passenger traffic has been an item of some account.

There are two long trestle bridges south of the village, the first 200 feet and the second 400 feet long, which are the only bridges on the line. These are strongly built and adequate to the heavy traffic of the road.

Rails are all steel, 60 pounds to the lineal yard. The ties are spaced 2700 to the mile. They are generally cedar and hemlock on tangents, and tamarack on all curves.

The grade in the ascent of the mountain is steep,—at one point 264 feet to the mile,—and on one of the spur tracks 330 feet to the mile.

The freight traffic of this road is the granitic rock quarried from the mountain, and in the brief space of fourteen months it has built and developed an industry second only in magnitude to the marble quarrying interests at Proctor and Rutland, in this State. Several thousand workmen are employed in connection with these quarries and their products.

BENNINGTON AND GLASTENBURY RAILROAD.

Line of Road.—It extends from Bennington village to the southern part of Glastenbury, a distance of 8.97 miles, with 1 mile of sidings.

The road is one-half inch less than standard gauge. Rails, iron, of 40 pounds per yard weight.

History.—This road, constructed in 1872, was designed and is operated especially for the development and carrying on of lumbering and charcoal business in the hill-country of Woodford and Glastenbury, northeast of Bennington.

In summer the passenger traffic becomes considerable from the frequent picnic and other excursion parties who seek brief outings in the wild region it penetrates.

There is also a delightful summer resort and home recently opened here, where many city people with their families seek and find rest.

Inspections.—Made July 17, 1889, and July 2, 1890.

This road has served so far for the purpose for which it was

built—a coal and lumber road—without accident occurring through defect of its physical condition.

The road-bed is generally grown up to grass; the ballasting is neglected; the rails are badly bent and abraded, and all border policing neglected.

The cattle-guards, fences and highway crossings do not fulfil the law and the bridges are unsafe.

A fuller description of the condition of this road may be found in the last Biennial Report on pages 47 and 48.

There are no signs of improvement here, as a whole, in the last three years.

BENNINGTON AND RUTLAND RAILWAY.

Line of Road.—This road extends from Bennington to Rutland, 57.06 miles, and from North Bennington to New York State line, 1.85 miles. Total length of line, 58.91 miles. Sidings, 5.25 miles. Gauge, standard. Rails, steel, 60 pounds weight.

History.—Chartered as the Western Vermont Railroad Company, November 5, 1845. The branch from North Bennington to New York State line, to connect with the Troy & Bennington Railroad, was opened in July, 1852. The part from North Bennington to Bennington in 1854.

It went into the hands of mortgage trustees, January 1, 1857, and was consolidated with the Lebanon Springs Railroad in February, 1870, under the name of the Harlem Extension Railroad Company. This consolidated line was leased to the Central Vermont Railroad Company in 1873, but the lease was abandoned in 1877, and the road reverted to the mortgage trustees of the original companies.

There was a re-organization under the name of the Bennington & Rutland Railway Company, which company has operated the line since September 10, 1877.

Inspections.—The first inspection was made July 11, 1889, the last July 2, 1890. The road is now all laid with 60

pound steel rails, the last having been put in since the Biennial Report of 1888.

The ballast is first class and the road-bed in good general condition.

The bridges are generally of the Howe truss pattern, and all the original bridge structures have been replaced by new ones since the road began to operate, and about one-half of all bridges on the line are not over ten years old.

The floor systems of the new or built-over bridges are of modern type, with close ties, and all bridges are built with a slight swell at center. The extended improvement in the floor system of the bridges of this road, since the inspection of 1887, has been especially noticeable and commendable, and it is still progressing.

The road ties are in good renewal and well spaced, 2 feet from center to center.

The station house at Bennington village is in no respect suited to the needs and tastes of the public and visitors of that town.

Fences, cattle-guards, highway crossings and sign boards are generally in good condition.

BOSTON AND MAINE SYSTEM.

CONNECTICUT AND PASSUMPSIC RIVERS RAILROAD.

Line of Road.—From White River Junction north to Vermont and Province line, a distance of 110.30 miles, with 23.35 miles of sidings.

The rails are steel, 56 pounds and 60 pounds weight. Gauge, standard.

History.—This corporation was chartered October 27, 1843, but the road was not completed and in operation throughout its entire length until October 14, 1863.

It leased the Massawippi Valley Railway, extending from Vermont and Province line to Lennoxville, P. Q., a distance

of 34.75 miles,—with a branch line running to Stanstead, P. Q., and Derby Line, Vt., 2 miles,—for 99 years from July 1, 1870, thereby making a connection at said point with the Grand Trunk Railway. It also now connects at Lennoxville with the Quebec Central and Canadian Pacific Railway lines. The total number of miles operated by this road since the lease of the Massawippi Valley Railway has been 147.05.

The line was leased to the Boston and Lowell Railroad Company for the term of 99 years from January 1, 1887, and, when the lines of that company were leased to the Boston and Maine Railroad for 99 years, from April 1, 1887, it came under the control and management of the latter corporation, which still continues to operate it.

Inspection, 1889.—Made June 24 and 25, by Commissioners Pingree and Fletcher, and Clerk Watson, accompanied by Prof. H. A. Hitchcock.

At the time of this inspection it was noticeable that much work had been done for the improvement of the permanent way, but more especially the road-bed, and this was still progressing. There had been a re-adjustment of the surface of the track along the line since the previous inspection, and the line had been straightened in a number of places where there were bad curves of considerable length. The original wall abutments of considerably many bridges and openings had been and were being replaced by those of solid masonry of lasting character, having wing walls of good width. The latter feature will admit of the widening of the approaches of bridges having the same, as has already been done in some cases, thereby making a commendable improvement which is recommended, and especially where the bridges are approached upon curves.

The road-bed altogether is in good condition. It is kept well ballasted and worked, has good shoulders, and is generally well ditched. Grass, weeds and bushes had not been cut along the line at the time of the inspection, but it was noticed that attention was given to this matter later in the season.

The track was found to be in good alignment and surface. It is steel, mostly of 56 pounds weight; 15 miles of 60-pounds steel have been laid since 1887, and this is being gradually increased. Seven miles of Scranton steel of this weight were distributed along the line to be laid, at the time of inspection.

The fencing along the road-way is mostly well maintained, but needs renewal in a few places.

Cattle-guards were wanting at some points, but a large number of the bevelled-slat style were being built to be placed along the road.

The superstructure of this line had not received so much attention as the road-bed, and yet it was by no means neglected. The bridges are quite numerous, and although all are probably sufficient for the time being, some are rather light for the increasing heavy traffic on this road, and will doubtless be replaced by heavier ones at an early day; all have careful oversight and have been strengthened where necessary. A new, substantial, double-pinned lattice bridge has been built at East Barnet within the past year.

The Abbott deck bridge in Barton is conspicuously ready for displacement; and if, as the management somewhat contemplates, a large masonry arch is put in here with earth filling over it, it will make a decided improvement. This bridge is high and dangerously located, and the approach at the north end is bad.

The passenger depots along the line generally are well kept, fairly well furnished, and meet the requirements of the public. Those at Norwich and Hanover, Ely, Fairlee, South Newbury, St. Johnsbury Centre and West Burke, have been renovated and somewhat improved. A first-class, new one, of modern design and appointments, has been built at Wells River within the past year, in accordance with the recommendation of the Board. It is located farther north than the old one, and is more convenient for the passengers of all trains.

The depots at Bradford and Barton are hardly respectable for those places.

In all other respects not specified, the physical condition of this road is not open to criticism.

Inspection, 1890.—Made June 17, by Commissioners Ormsbee and Fletcher, and Clerk Watson.

The road-bed is maintained in good condition, being kept well ballasted and worked. The ties are seasonably renewed, and are in good life; 75,183 have been laid within the past year, at a cost of \$18,000.

Bevelled-slat cattle-guards have been put in where they were wanting a year ago.

Two highway grade crossings have been abolished just north of Wells River in the town of Ryegate, upon a recommendation of the Board, by cutting through an embankment and laying the highway parallel with the railroad track for about twenty rods, and the improvement is very perceptible.

The traffic over this road has increased largely of late through its northern connections, which has necessitated the building of several additional miles of side track. About ten miles more will have to be built to meet the requirements of the present business, so that trains can be moved with facility and expedition.

The track was found to be in very good alignment and adjustment; 719 tons of 60-pounds steel rails, costing \$21,570, have been laid during the past year, and when all have been laid that were distributed along the line at the time of the inspection, there will be 40 miles of track of this weight of steel.

A proposed change in the course of the river just south of Barton Landing station will avoid two covered bridges of 90 feet and 100 feet in length respectively.

Particular attention has been given to the superstructure of the road since the last inspection.

A new, modern floor system has been put on the Wells River deck bridge since last year, and also on the Abbott deck bridge, but the latter bridge itself remains the same.

The old Keats covered bridge in the town of Passumpsic

has been replaced by a substantial new one of double-pinned lattice type. The Childs covered bridge across White river at White River Junction is now being replaced by a new, iron, riveted, lattice bridge. Over \$71,000 have been expended in new bridges and the repairs of old ones during the past year.

The Barnet passenger depot has been repaired. A neat and commodious new depot has been built at Olcott, and the one at Norwich and Hanover station has been remodelled and is now well adapted to the wants of its patrons.

A model new depot has been built at Bradford within the past year, which is complete in all its appointments. It has running water, good closets with sewerage, and is heated by steam. The one at Barton remains substantially the same as last year. The other passenger depots on the line are commodious and meet the requirements of their respective localities.

Some standard highway crossing signs have been constructed and erected since the inspection of 1889, and additional fencing, mostly barbed wire, has been built. The frogs, switches and guard-rails have been blocked according to law, but will require early renewal in some places where much worn, and warped and cracked by bad weather.

The equipment of the road is good, but there is not enough of it for its increased business. More motive power is especially needed.

Owing to the use by its railroad connections immediately outside this State of the Baker and Johnson hot water heaters in heating passenger cars, a permit was asked, and granted by the Board, for the use during the past winter of these heaters upon certain trains upon which are run through cars.

The passenger train service has been much improved within the past year by the addition of a train which leaves White River Junction, bound north, upon the arrival there of express trains from Boston and New York, late in the afternoon; and also a train which leaves Wells River early in the afternoon

and arrives at White River Junction in season to connect with express trains for Boston and New York. An afternoon local passenger train from Newport to White River Junction is needed to meet the public requirements for the full line, and, when this is added, the passenger train service of the road will be most satisfactory and complete.

The consolidation of this railroad with the Boston and Maine system has thus far been attended only with the most gratifying results, as shown in the substantial improvements made in the road's permanent way and the much better train service afforded the traveling public.

ST. JOHNSBURY AND LAKE CHAMPLAIN RAILROAD.

Line of Road.—From Lunenburg to Maquam Bay, 120 miles, main line, and Victory Branch from North Concord to East Haven, 11.5 miles. Total line operated 131.5 miles. Sidings and yard track, 15.09 miles. Gauge, standard, 4 feet 8½ inches. Rails, main line, steel, 115 miles, 50, 56 and 60 pounds; Victory Branch, iron, 56 pounds.

History.—This railroad is a union of the lines of three separate companies originally, namely, the Essex County Railroad Company, chartered 1864, amended 1866; Montpelier and St. Johnsbury Railroad Company, chartered in 1866; and the Lamoille Valley Railroad Company, chartered in 1867. Consolidation was effected by the three companies jointly bonding their property, but failing to pay the interest on bonds, all the roads went into Receiver's hands in 1877, the year that it was opened for business.

The road was first operated as the Portland and Ogdensburg Railroad, Vermont Division. It was reorganized under the name of the St. Johnsbury and Lake Champlain Railroad, January 31, 1880, and commenced to be operated under this name July 1, 1880, and so continues at present.

The Victory Branch road was constructed to the lumber districts in Victory and East Haven, in 1882-3, to afford

transportation accommodations for the large out-put of lumber from the mills located in these towns. It was built by the St. Johnsbury and Lake Champlain Railroad Company by which it is now owned and operated.

Inspection, 1889.—Made June 28 and July 24 by the full Board, accompanied by Prof. H. A. Hitchcock upon the first named date.

The physical condition of this road showed improvement generally since the last inspection. Attention had been given particularly to the bridging over the smaller openings on the line, considerably many renewals being noticed. These new bridges were constructed with the modern style of floor system—long ties, closely spaced, with guard rails—a decided improvement over the old style with short ties and no guards, as originally constructed.

The wood-faced, earth-work at the ends of these bridges had also been displaced by good stone abutments, in many instances solid masonry, affording more substantial bearings. There has been some earth filling also to replace trestles, which policy is being continued with a view of filling all openings where it is advisable and practicable.

No. 33, trestle, was in need of a new floor system. No. 97, pile bridge in Fairfield, was found in poor condition and was criticised. The track sticks rested on pile abutments and blocks, and the earth back of same at one end had been washed out. The piling, however, was sound, and the floor system was of modern type.

The Pumpkin Hill trestle was found to be substantially the same as reported in 1888, but work preparatory to filling this opening was already under way at the time of the inspection.

Comparatively little work had been done upon the longer bridges, which are covered, and, being better preserved, there was not so much need of their renewal on account of age or any decay. Some of original, light construction were found in need of being strengthened, as had been done to others

elsewhere, to meet the heavier traffic than formerly over the road. Those at Swanton and Sheldon are of this class.

Altogether, a great amount of work has been done in the way of improvement of bridges on this road, upwards of \$100,000 having been expended in this direction in 1888-89.

The road-bed was found to be in an improved condition, a considerable ballasting having been done since 1888.

There was a wash-out in the road-bed west of East Fairfield, where was a temporary trestle. As this is not the first wash-out here, it is evident that a capacious arch would be advisable here.

There are quite a number of sharp curves on the road, some of which it was noticed needed elevation. The ties were in good life, having been renewed on nearly the whole length of the line within the past year. The rails were in good condition and were all steel on the main line except about six miles.

Quite a general want of cattle-guards was noticed, but a supply of the bevelled-slat type was being constructed for use.

Highway grade crossing signs were wanting in some places where they should be erected. The ditching and fencing were fairly good.

The depots were found to be generally commodious and well adapted to the requirements of the patrons of the road, with the exception of those at Highgate, East Highgate, East Fairfield and Sheldon stations, which can hardly be so classed, and should be rebuilt or remodelled, certainly as soon as the more necessary improvements in the permanent way of the road are completed.

The Victory Branch is laid with iron rails, considerably many of which are poor and worn. The track is in poor alignment and adjustment. It is quite largely a surface road and is scantily ballasted and worked but little. The ties are generally in good life. Being a lumber road, the fencing,

cattle-guards, crossing signs and cutting of weeds and bushes along the roadway are generally neglected.

There are no bridges of any considerable length on this Branch, and all are stringers on pile or trestle supports, except the one over Moose river, which has cob-house piers of logs and heavy stone. All lack the modern floor system. Some passengers are carried on the road now, and trains are run slowly and with care.

Inspection, 1890.—Made June 17 by Commissioners Ormsbee and Fletcher, and Clerk Watson, and June 18 by Commissioners Ormsbee and Fletcher.

The road-bed remains substantially the same as in 1889, but 25 miles of it are to be reballasted this year. The track is generally in good alignment and adjustment, 65,000 ties and 553 tons of 60 pounds steel rails have been laid the past year at a total cost of \$34,000. The Pumpkin Hill trestle has been about two-thirds filled, and, when completed, this will be a great improvement. It is estimated that it will have required about 200,000 yards of earth to fill this gap, and that the cost will be in the vicinity of \$60,000.

The company proposes next to fill the gulch now spanned by the Walden high trestle.

A branch road, two miles long, has been built from a point west of Hardwick towards Woodbury, to accommodate and aid in developing the various granite quarries in Hardwick and Woodbury.

Several short, and one long bridge, of Howe truss pattern, have been built within the past year, and there has been some filling of smaller openings.

A new stone arch and earth filling have been put in at the washout near East Fairfield noted last year; No. 33, trestle, is being filled; No. 97, pile bridge, has been substantially improved and made sufficient; and the Sheldon and Swanton Howe truss bridges have been materially strengthened, and each has had a new floor system added to it.

Altogether, \$30,000 have been expended upon bridges and culverts during the past year.

Some highway grade crossing signs are not in place and should be erected. A lot of the bevelled-slat style of cattle guards have been put in on the line the past year, but some are lacking at places where needed.

There have been no material changes in the depots on the line, except at East Swanton, where there has been constructed a neat, commodious union depot with all necessary appointments. This depot was built by the Central Vermont Railroad Company, this company paying one-third of the cost, and is situated at the intersection of these two roads. It is a great improvement over the old depot which was located about half a mile north on the Central Vermont Railroad, and much better accommodates the travelling public who are joint patrons of these two roads.

A good substantial engine house has been built this year at Lunenburgh, which will hold eight locomotives, and sidings which will hold 175 cars have also been put in at this point.

In all other respects not noted the physical condition of the road remains substantially the same as at the time of the last inspection.

The company has a dock and large coal sheds at Maquam Bay, where it makes connection with water transportation on Lake Champlain. Also; at this point, which is the western terminus of the road, it has a large hotel and farm fronting on the lake.

Frogs, switches and guard rails were found blocked pursuant to law. The cars of passenger trains on this road are heated by steam.

The Victory Branch was inspected in connection with the main line and was found substantially the same in all respects as reported above in 1889.

CANADIAN PACIFIC SYSTEM.

SOUTH EASTERN DIVISION.

NEWPORT AND RICHFORD RAILROAD.

Line of Road.—From Newport to Canada line at Richford. Length of main track in Vermont, twenty-one miles; sidings, one mile. Steel rails throughout, weighing fifty-six and sixty pounds to the yard. The ties are spaced three thousand to the mile. Gauge of road, standard.

History.—This road was chartered and built as the Missisquoi and Clyde Railroad, and was sold out and reorganized under its present name in 1880. It is now operated as a part of the Canadian Pacific Railway system for the trustees of the South Eastern Railway Company.

Inspections.—June 27, 1889, by Commissioners Ormsbee and Fletcher, and Clerk Watson, accompanied by Prof. H. A. Hitchcock, Civil Engineer. The road-bed is of ample width at all points, but the scarcity of ballast exists, quite noticeably on some portions of road, much to the detriment of a perfect maintenance of road-way and superstructure. The line and surface of the track is good, but would be much improved if more ballast was placed upon the road-bed. On portions of the line the ties are in good sound condition, on others in poor life. Renewals were being made at time of inspection. They are hemlock, cedar and tamarack. The rails are steel of fifty-six and sixty pounds weight, and quite a number of the fifty-six pounds weight were found quite poor. Assurance was given that the same would be immediately replaced with new sixty pounds steel. Switch and frog blocks are in all along the line. Highway crossing signs were all in place. A brief outline of the stations of the road and their condition is as follows :

At Newport, the depot, occupied in common with the Passumpsic railroad, is wood, with two good waiting rooms, well furnished and cleanly, but not large enough.

At Newport Center, the side track is between the main line and depot. The depot is rather small but adequate for the place. It was found in fair order, but the planking in platform was broken in places.

North Troy has a good depot, with two waiting rooms, but they are somewhat out of repair.

At East Richford, only a small depot is provided; only a small passenger business is done here.

Stevens' Mills is a flag station.

Richford has a good cleanly building, with two large, well furnished waiting rooms. There is quite an amount of trestle work and pile bridging on the road. Some of these structures are in good order while others show age and should be rebuilt as soon as possible, and all provided with a modern floor system and guard-timbers.

North Troy Howe truss deck bridge, has two "horses" under it and is sixty feet high from the water. This bridge was very carefully examined by Prof. Robt. Fletcher, Civil Engineer, of Hanover, N. H., some few months ago, and certain recommendations made for immediate repairs. We find most of them have been carried out, but that the floor system is still in a bad condition owing to very inadequate guard-rails and the absence of guard-timbers. The guard rails as now placed are a source of danger. It was noticed that the sway bracing had been strengthened by doubling the number of braces, but they are not as securely fastened as seems advisable. While no doubt the bridge is safe, it has a very bad appearance and should be replaced with an iron bridge at once.

Missisquoi iron deck bridge is good, well painted, and has a modern floor system. There is in use on this road the high switch stand, showing target and signal lamps, which would be well for all other railroads in our State to adopt. All sharp curves are well braced.

The inspection of this road for 1890 was made June 10, by the full Board.

Considerable improvement has been made in the condition of the road since the inspection of 1889. The defects noted in the last inspection have been remedied. Considerable ballasting has been done and ties have been extensively renewed until now they are in good order. Attention has been given to the lining and surfacing of track.

One hundred tons of sixty pound steel rails have been laid between Richford and East Richford. The North Troy Howe truss deck bridge was burned a short time ago, and a good temporary trestle has been put in. An iron bridge is to take its place as soon as possible. The trestles have been repaired to quite an extent. Generally the road is in good, safe condition, and well managed.

CENTRAL VERMONT SYSTEM.

CENTRAL VERMONT RAILROAD.

Line of Road.—This system consists of a main line running from Windsor to Rouse's Point, with leased and operated lines as follows: viz.,—

Addison Railroad, Brattleboro' and Whitehall Railroad, Burlington and Lamoille Valley Railroad, Missisquoi Valley Railroad, Montpelier and White River Railroad, New London Northern Railroad (ten miles), Rutland Railroad, Swanton Branch Line (Swanton Junction to Province line), all within this State, and being 427.6 miles of main line, together with about three hundred and five miles of road outside of Vermont. The Central Vermont Railroad proper has 59.7 miles of sidings, etc.

History.—The Central Vermont Railroad is an outcome of the Vermont Central Company, which was chartered in 1843 to build a road from Windsor to Burlington. The same was completed and opened to travel by December, 1849.

A road called the Vermont and Canada was chartered in 1845, extending from Essex Junction to Canada line. This road was leased before completed to the Vermont Central

Company for fifty years, at an annual rental of eight per cent on its cost. It was practically an extension of the Central Vermont road, the Vermont Central giving a mortgage of its properties as security for the payment of this rent, amounting to over \$107,000 per annum ; the construction cost of the Vermont and Canada being \$1,348,500.

The Vermont Central issued \$2,000,000 first-mortgage bonds, and \$1,500,000 second-mortgage bonds ; the first in 1851, and the second in 1852, to meet its pressing obligations. But the embarrassments of the company increasing, a trusteeship was instituted, and the road and its properties were placed in the hands of trustees of the first-mortgage bonds, and was operated by said trustees until 1854 ; when, being unable to pay the rental to the Vermont and Canada, that road, by the terms of the contract between them, took possession of the Central road as receiver, and operated the system until its arrears of rents were realized, and then surrendered it back to the trustees, who were now clothed by the Court of Chancery with the powers of receivers under the law.

Under management of the receivership, and with the sanction of the court constituting it, the capital stock of the Vermont and Canada road was increased to \$2,000,000 ; and thereby the overdue rents were reduced and funded.

It was also arranged that after payment of the annual rental out of the income of the property, funds should be used for the construction of a branch road from Swanton Junction to Province line in Highgate ; and a new increase of capital stock was made on the Vermont and Canada road of \$250,000. In 1867, another \$250,000 was added for like purposes, and in 1871, \$500,000 more ; increasing the capital stock of that road to \$3,000,000.

The funds raised by this increase of stock were used to fund a debt of \$114,500 due the Vermont and Canada road, to pay dividends, and to extinguish other obligations.

In the course of a few years after this, the trustees had extended their system by the purchase or leasing of the following named roads : to wit,—

The Stanstead, Shefford and Chambly road, from St. Johns to Waterloo, P. Q., had been bought for \$500,000, being forty-three miles of road.

The Rutland Railroad and the Addison, and also the New London Northern, had been leased for twenty years. Later the Montpelier and White River Railroad has come under its control, as also the Brattleboro and Whitehall Railroad.

The Central Vermont Railroad Company was organized in 1872, and took charge of all the above named roads in 1873, as receiver ; and continued to operate the system until 1884, when the receivership terminated.

The great legal controversies between the Vermont Central and the Vermont and Canada tended to the ruin of both companies ; wasting their income, and burdening their receivership with an indebtedness of many millions of dollars.

This indebtedness the court adjudged to be a lien upon the properties of the Central Vermont Company, having preference over the rental due the Vermont and Canada Company ; and, upon the payment of these preferred claims, the court decreed that the Vermont and Canada Company be entitled to the possession of the roads of the Central Vermont Company.

The court later (in 1882) determined the order in which the various claims of creditors of these two roads should be liquidated.

The debt contracted by the receivers and managers, near \$8,000,000, should be a first lien on the properties ; and was adjudged to be treated as in equity the first mortgage on all the properties of the Vermont Central and the Vermont and Canada Companies.

It also decreed that the Vermont and Canada Company, and the two classes of mortgage bondholders above named,

should, within a time limited, pay and discharge this first lien, or be foreclosed of all right or claim on the property.

Then (in 1883) the Consolidated Railroad Company of Vermont was organized, to assume the properties and debts, and formulate a plan for terminating litigation and sealing and settling claims of security holders.

The plan was carried out. 1st, By an issue of \$7,000,000 five per cent bonds running thirty years, secured by first mortgage on the Vermont Central and Vermont and Canada Companies. 2d, By exchanging these bonds for the original stock of the Vermont and Canada, \$1,000,000 of the new bonds being taken for the \$3,000,000 of stock. 3d, By buying up through exchange Stanstead, Shefford and Chambly bonds, and other preferred claims of different security holders, paying \$4,357,000 of the consolidated bonds in exchange for a like aggregate amount of the old claims; all arrears of interest being waived by the holders. 4th, By dividing the balance of these bonds (\$1,643,000) to retiring the floating debt of \$1,000,000 and other indebtedness of the trust, including the claim of the Central Vermont Company, amounting to \$643,000. 5th, By issuing preferred capital stock of the new company to the amount of \$750,000, and exchanging the same at the rate of twenty per cent for the first-mortgage bonds of 1851, and ten per cent of the second-mortgage bonds of 1852 at face value, and all arrears of interest waived.

This stock bears six per cent dividends annually, if the earnings of the company reach it, after paying its preferred obligations.

July 1, 1884, the property was turned over to the Consolidated Railroad Company of Vermont, and was by it on the same day leased to the Central Vermont Railroad Company for ninety-nine years; the latter corporation assuming all the obligations of the Consolidated Company by the terms of the lease.

Inspections.—The main lines of this road, in this State, ex-

tend from Windsor to Burlington; Essex Junction to New York State line at Rouse's Point; and from Swanton Junction to Province line; and in this inspection report are treated as one line. For operating purposes these lines are divided as follows: Central Division, extending from White River Junction to St. Albans; Northern Division, from St. Albans to Province line (and from thence to St. Johns, P. Q.); Western Division, from St. Albans to Rouse's Point; Southern Division from Windsor to White River Junction; the line from Essex Junction to Burlington is operated as a part of the Rutland Division.

These lines of this road were inspected each year, and mostly by the full Board, and in 1889 the Board was accompanied by Prof. H. A. Hitchcock. The road-bed was found to be in good condition, well ballasted and policed. The track is of steel, 60 pounds to the yard, excepting from St. Albans to Bolton (about 42 miles) where it is of 72 pounds weight, all in good condition, and alignment and in all other respects the track and its condition for service are superior. About seven miles of 60-pound rails have been replaced by 72-pound rails since the inspection of 1888, and in no respect has this line deteriorated since said former inspection, unless it may be in regard to bridges. These are hereinafter specially commented upon.

The ties are generally sound and in good condition, although in some places they are considerably worn, and for that reason fail to give full support and steadiness to the rails. Fences are being improved from year to year, and while in places they are defective and insufficient, yet as a whole they are reasonably ample,—21 miles of woven wire was put up in 1889-90,—and the same may be said of the cattle guards and highway crossing signs.

Bridges. In the former report of the Board it was said: "New bridges are gradually taking the places of the old; and in all cases of rebuilding, iron structures indicate the pro-

gressive policy of the company,"—and this is true as to the time covered by this Report. This work of rebuilding bridges is, however, in the opinion of the Board, much too gradual to insure that degree of safety to which the public is justly entitled, especially in view of the fact that many of the structures are quite old, and were erected to carry a much lighter traffic than that by which they are now taxed. This company does not fail to appreciate the condition of these bridges and has a close supervision over them, and makes their condition a subject of special watchfulness, and is striving in various ways, by adding supports and otherwise strengthening them, and by rebuilding as rapidly as it deems its pecuniary means will permit, to make them answer the requirements of its largely increased and rapidly increasing business; and its managers are doubtless honestly confident that they are doing all and as rapidly as the means of the company will permit; but it is respectfully submitted by the Board, that in respect to *safety*, the pecuniary ability of the carrier is not the test of duty. Having said this much in a general way on this subject, the Board is led to particularize as follows: At the time of the inspection of 1889, the pile bridge at Rouse's Point was wanting in guard-timbers, and some of the other timbers were more or less decayed; and the "draw" was in need of renewal. In 1890 the "draw" had been renewed, but otherwise the bridge remained the same as in 1889.

The Jewett Brook Bridge—between St. Albans and Swanton Junction—is an old structure, and at the time of the inspection of 1889, was commented upon unfavorably by the Board to the officers of the company who accompanied it, and assurances were given that it was to be rebuilt soon; but the inspection of 1890 found it in the same condition as that of 1889.

The Georgia Deck Bridge.—In 1889 it was deficient in not having proper guard-rails, and its approaches were the sub-

ject of unfavorable comment; and as a whole there was evident need of re-inforcement. Prior to the inspection of 1890, extensive repairs had been made, and its strength greatly increased; but the approaches, floor system and guard-rails were still unsatisfactory.

The Bradley Deck Bridge.—The abutments are poor, and must be a subject of solicitude until renewed. Assurance was given to the Board that this matter should have the early attention of the company.

Hinkson Brook Bridge.—The guard-timbers were found to be in need of renewal—same in 1890 as in 1889.

Stony Brook Bridge.—This is not satisfactory in appearance, and, while it is probably stronger than its appearance indicates, and reasonably safe, it should be renewed. This conclusion is in accord with the declaration of Bridgmaster Clark, who accompanied the Board.

Dog River Bridge No. 6.—At time of inspection of 1889 assurance was given that this bridge would be replaced by a new one that season, but the inspection of 1890 found the old structure still there. The bridge has been strengthened by use of additional rods and by other means, and is probably sufficient to bear its burdens under favorable conditions, but for want of guard timbers and supports under ends of ties, and, by reason of poor approaches, there is great liability of an emergency that it would be unable to meet successfully.

Bethel Bridge.—Howe truss, erected in 1849. The inspection of 1889 caused the Board to direct a special inspection by an expert. This was made by Prof. H. A. Hitchcock in September, 1889. And from his report we make extracts as follows :—

“The vertical rods in the two (2) end panels have been reinforced by the addition of two (2) $1\frac{1}{2}$ rods, and corbels have been put in two (2) panel lengths from each end. Two timber horses have been put in; one 48 feet from south end of bridge, and over 49 feet from north end. * * * * The

horses are of good design and of sufficient strength. Without them I do not believe the bridge could stand. The appearance of the timber would indicate that it was in poor condition, but borings into some of the worst looking pieces showed them to be in a very good state of preservation. There may be—and undoubtedly there are—places (at present inaccessible) where the timbers are badly rotted. As far as I can see, the iron rods are all right as far as they go.” (Here follows a computation as to strength of the bridge.)

“Floor system.—New ties, properly spaced, and a new guard-timber have recently been put in. The stringers are not stiff enough, there being excessive ‘wave motion’ during motion of trains.

“Approaches.—I do not think there is anything absolutely dangerous about the approaches, but think they ought to be improved by the addition of ‘wings’ to the guard-timbers.

“Recommendations.—I do not consider the bridge, as it now exists, strong enough to carry the heavy traffic of the Central Vermont R. R. without straining the material (that is most of it) beyond the allowable limits of 800 pounds per square inch for timber and 10,000 pounds per square inch for iron. I think the bridge may be made safe by following out either of the following plans :—

“1st. Reinforce all the braces and rods in the two end panels of each truss, with the exception of rods in shore panel of the outer trusses. Put in two extra stringers (1 per rail.)

“2nd. Put one timber horse in the middle of each of the spans. Put in one extra stringer per rail.

“Note.—It may be dangerous to obstruct the stream by putting in more horses. * * *

“3rd. Put in a new bridge, figured for modern traffic—and a little more besides. I strongly advise following the third plan—a new bridge.”

The full report of Prof. Hitchcock, and correspondence having reference to it, may be found among the “Special Inspection Reports” elsewhere in Part II.

Soon after the contents of the report of Prof. Hitchcock were made known to the company, the bridge was strengthened to a considerable extent. The inspection of 1890 found the bridge as in 1889, except as to the aforesaid reinforcement. Until replaced by a new, sufficient and modern structure, this bridge must continue to be a source of anxiety.

Foxville Bridge, No. 22.—Howe truss, erected in 1849. The appearance of this bridge at time of the inspection of 1889 was far from satisfactory. It was then said by Bridgemaister Clark, that the bridge was to be built over that season; that an order had already been given for a new bridge, and for this reason the Board waived a special inspection of it, as was contemplated; but the inspection of 1890 found the old bridge still there without any material improvement. The ties and guard-timbers are in such a condition as to invite rather than prevent an accident, in case of a derailment.

Lull Brook Bridge (between White River Junction and Windsor).—This is an iron bridge, link and pin, erected in 1881; and has been the subject of a special inspection by Prof. Robert Fletcher, whose report may be found under the head of "Special Inspection Reports," together with correspondence on this subject. After the report of Prof. Fletcher was made, measures were taken by the company tending to remove the apprehensions of the Board as to the safety of this structure, as will appear from the correspondence above referred to.

Hodgman Trestle, on Southern Division.—This, too, is an old structure. Length, 102 feet, with 12 pile bents; height to grade, 39 feet; and timber and earth abutments. It is difficult properly and fairly to characterize this trestle as a whole or to describe it further than to say that it is a poor thing in every respect. The company has "hung on to it" with the view of filling, and so nothing has been done from year to year, and now it is in such a condition of decay and neglect that the Board will feel compelled soon to exhaust its power

in the direction of finding a remedy, unless the company shall in the meantime perform its duty.

In all its criticisms of the original bridges of this road, the Board is especially impressed with the fact that the consolidated locomotives recently introduced here, as well as the weightier traffic which has greatly increased the strain on them, has nearly or quite doubled the weight they were built to carry.

Stations.—As a general proposition the station accommodations are ample. Those at Swanton Junction, Waterbury, West Randolph, Bethel, South Royalton and Sharon are among the best; and several of these are models of neatness, and are complete in having all modern accommodations. And since the inspection of 1889, and as a result of a complaint to the Board in reference thereto, the station at Winooski has been partially rebuilt and renovated, and is now ample and sufficient. A few, however, are so far from being respectable that special mention may well be made of them. The one at Swanton is the most marked, and unless it is rebuilt or extensively repaired and renovated at an early day by the voluntary action of the company, the Board should supplement warnings already given by such further action as may be required to make it what it should be. The stations at Milton and Colchester are in great need of renewal or thorough repair and renovation. Each and all of these criticised stations fall very far short of being what the traveling public—the patrons of the road—are fairly entitled to.

ADDISON RAILROAD.

Line of Road.—Leicester Junction to Ticonderoga, N. Y. 15.60,—with one mile of sidings.

History.—Chartered in 1870. Opened December 1, 1871, and immediately leased to the Rutland road and transferred with the latter under a 20 years' lease to the Central Vermont Railroad Company, and since operated by the management of the last named company.

This lease expires January 1st next, when it is expected the Addison Road following the Rutland will pass into the hands of the Delaware and Hudson Canal Company, under its lease of the latter road.

Inspections.—This road was inspected by Commissioners Ormsbee and Fletcher, July 11, 1889, and by the full Board, July 1, 1890. The track, which is now all of 56-pound iron except 4 miles, which is second hand steel, is in a bad general condition throughout its entire length; the joints are battered and open and the cars run roughly.

There are few bridges on the line and none of them long.

The floor system of these was generally faulty two years ago, and not such as would carry over a derailed car, the ties being too short, too widely spaced and imperfectly secured. Modern guard-timbers or rails not then in use have now been placed on all of them, save one, with ties closely spaced, but the approaches continue faulty and dangerous.

The road-bed is among the most neglected in the State,—too narrow for a proper support of ends of ties,—particularly on curves over fills,—and the ties are largely unfit for safe travel or traffic over them.

The principal outlay on this line for the last three years consists in the renewal of the draw-bridge across the lake channel, at a cost of about \$10,000.

It is an excellent structure of its kind, and stands in strong contrast with the rest of the line.

The “Baldwin Dry Bridge” became the subject of fear and comment of the first Board, and, later, of complaint of town authorities and citizens.

Prof. Fletcher inspected this bridge and reported. His report, which may be found in Part IV under complaint of H. S. Brookins, was substantially concurred in by the Bridge-master of the road. Repairs insured greater security, but intensified its patchwork appearance.

The running of only one train over this road each way

daily, and that a mixed train, limited in speed to less than fifteen miles per hour, is the reason that the Board did not, for the safety of public travel, recommend specific and various improvements of its physical condition on its first inspection.

BRATTLEBORO AND WHITEHALL RAILROAD.

Line of Road.—From Brattleboro to South Londonderry, —36 miles, with two miles of sidings.

Narrow gauge,—3 feet.

History.—This road was chartered in 1867 under the name of the West River Railroad Company, and re-chartered in 1876 under its present name. It was leased to the New London Northern Railroad Company before completion in 1880, for a term of 99 years, but is now operated by the Central Vermont Railroad Company.

The road was opened for public travel and business November 3, 1880.

Inspections.—July 12, 1889, by the full Board, and Prof. H. A. Hitchcock, Civil Engineer, accompanied by James M. Foss, General Superintendent, Charles H. Clark, Bridgemaster, C. F. Brooks, Division Superintendent, and other officers of the road.

The road-bed was wanting in ballast and in other respects was deficient. The rails were all originally iron of 36 lbs. to the yard, but about seven miles at the easterly end of the road have been replaced by steel rails of 40 lbs. weight, and, notwithstanding the best of the iron taken up and replaced by the steel has been used to replace poorer rails, there were still many defective and not a few dangerous ones, more especially towards the westerly end of the line.

As to the bridges, this inspection disclosed that certain of them were, in the opinion of the Board, unsafe, and the attention of officers of the road was particularly called to such, and defects and dangerous features pointed out. Among the more noticeable in this respect were the following:—The West Dummerston deck bridge, Williamsville

Branch covered bridge, Harmonyville and Catherine (No. 36) pile bridges.

The stations were found to be adequate to the business of the road and generally in fair condition.

The second inspection was made by the full Board on June 24th, 1890, accompanied by J. W. Hobart, General Manager, the Superintendent of the division and Roadmaster, and others of the Central Vermont Railroad Company.

A considerable improvement over that of last year was noticed in the condition of the road-bed, and also a marked improvement in some of the bridges, yet, in the opinion of the Board, there are a few that may well be characterized as dangerous—or, at least, in a measure unsafe,—particularly the West Dummerston deck bridge.

The track remains substantially the same as in 1889.

As a general thing the ties were found to be sound and sufficient. An exception, however, should be made as to ties on several bridges and trestles and their approaches.

In the matter of fencing there is a general want of sufficiency, and this is true to some extent as to highway crossing signs; and in these respects there is a seeming want of attention by those having the immediate care of the road. And a like want of attention in respect to planking at highway grade crossings was noticed.

The condition of the stations is substantially the same as last year,—fairly good and sufficient.

BURLINGTON AND LAMOILLE VALLEY RAILROAD.

Line of Road.—From Burlington to Cambridge Junction, where it connects with the St. Johnsbury and Lake Champlain Railroad, 26 miles. Sidings, 2 miles.

History.—Was organized under the general law of this State, Feb'y 24, 1875. Construction commenced same year, and finished so as to run trains in 1877. Commenced to operate July 2, 1877. Began running over the Central Ver-

mont line between Burlington and Essex Junction, June 1, 1880. The distance from Essex Junction to Cambridge Junction is twenty-six miles. The distance from Burlington to Essex Junction on Central Vermont line, eight miles. This road was leased to the Central Vermont Railroad Company for a term of 95 years from May 1, 1889, by which said company it is now operated.

Inspections.—Made by the full Board, accompanied by Prof. H. A. Hitchcock, Civil Engineer, July 2, 1889. The road-way and superstructure remain in about the same condition as reported in our inspection remarks of 1888. Weeds and underbrush have thus far been neglected. Considerable ballasting is yet necessary and for the greater portion the surface and line of track are in very good condition. The ties are generally in good life. The fencing is somewhat broken down. Wire fencing is used, in renewals of which quite an amount is necessary properly to enclose the road-way. There is quite an amount of trestle bridging on the line and the Board can only affirm with greater force here that a large portion of this should be filled.

Essex Center Trestle. Piles sawed off in 1882. The Board was informed that the Company intended to put in two new stringers, new caps, new guard-timbers, and new ties 8 inches apart.

The west approach is in poor condition and needs wing-walls or other protection. Loose ties on west approach need fixing.

Jericho Trestle. 540 feet long, 13 feet spans. Bents rebuilt in 1886. Floor system, new 1888, has two 10 x 14 and 12 x 14 stringers per rail. (Inside ones are old). Bent posts 12 x 12; height, 40 feet; all in good condition.

Jericho Curve Trestle. Same detail as the Jericho trestle, old stringers supplemented by 12 x 12 stringers; new floor system with 6 x 8 ties, 8 inches apart.

Brown's River Trestle. 150 feet long. Has been renewed

since 1888, by addition of 10 feetties, 8 x 6 and 8 inches apart, new 12 x 12 stringers.. Pile foundations in good condition.

Swamp Trestle. Wretched floor system, ties 8 feet long and very far apart, two 8 x 12 stringers per rail. The floor system should be improved by addition of extra ties and suitable guard-timbers.

Robinson Trestle. 150 feet long. This trestle has been recently renewed by the addition of two 12 x 12 stringers, the whole length of the trestle, 5 new caps, 10 new posts and one entire new bent, and a good modern floor system.

McClure Trestle. 210 feet long. 12 spans, new floor system; ties 10 feet long, 8 inches apart; two 12 x 12 stringers per rail, the old one to be moved in. Guard-timbers should be more securely fastened to ties. Several of the sills have not a suitable bearing in the bed of the brook, and some of the latter braces are not notched into the sills, but simply spiked. Would advise the addition of longitudinal bracing.

Strain Beam and Pile Bridge at Cambridge. This has wooden abutments and a poor floor system. It is not a proper structure. An iron bridge with stone abutments and a modern floor system should be substituted.

Jeffersonville Riveted Lattice Bridge. 50 feet long. Good masonry; three 6 x 10 stringers per rail; a modern floor system, —guard timbers 6 x 8 and notched into the ties.

No change has been made in maintaining cattle-guards. The depots were all inspected and found generally in good condition and neatly kept.

Inspection in 1890 was made June 19 by Commissioners Ormsbee and Fletcher. This road was found in much the same condition as reported last year, excepting between Cambridge and Cambridge Junction. This part of the road suffers much for a sufficient quantity of good ballast.

The alignment and surface of the track are poor. The track and bridge force now consist of sixteen men for twenty-six miles, which is quite too small to maintain the road even in a

reasonably safe condition. Ten thousand new ties are to be put in this year. Two and a half miles of new wire fencing have been built during the past year.

Essex Centre trestle has been repaired ; new floor system. The west approach has been planked to hold the dirt. About 100 feet of the Jericho curve trestle has been filled. It has a close floor system but too light guard timbers.

The Robinson and McClure trestles have been repaired during the past year and are now in good condition so far as could be seen at the time of inspection.

The depots all have high platforms, which are to be lowered to 12 inches from top of rail, which will, when done, add much to the public safety.

MISSISQUOI VALLEY RAILROAD.

Line of Road.—This road extends from St. Albans to Richford, where, by a spur track seven-eighths of a mile in length, it connects with the Canadian Pacific system. The length of the main line is 28 miles; sidings, $2\frac{1}{4}$ miles.

The track is of standard guage, and the rails are steel, weighing 56 pounds to the lineal yard, with the exception of about 10 miles, which are iron.

History.—The road was built in 1872, at a cost of \$720,000. In July, 1873, it was leased to the receivers and managers of the Vermont Central Railroad Company, upon the reorganization under this name. This latter corporation continued to operate the road until Nov. 15, 1877, when it surrendered the same to the mortgage trustees, who operated it until December, 1886. The present company was organized in December, 1886, with a capital of \$500,000, issued in exchange for the bonds and coupons surrendered. Leased to the Central Vermont Railroad Company, June 30, 1888, for 95 years at an annual rental of \$20,000—four per cent of the capital stock.

Inspections.—Made June 27, 1889, by Commissioners Ormsbee and Fletcher, Clerk Watson and Prof. H. A. Hitchcock,

Civil Engineer. This road has altogether 18 miles of steel rails of 56 pounds weight. The remainder, 10.85 miles is of iron, 50 pounds weight. Old-fashioned wood chair joints are in use for the iron rails. There are strap fish plates where rails are steel. The road is largely a surface road. But little change in the condition of this road was noticed since the last inspection. There is a scarcity of ballast, but the ties are in good condition; 10,000 cedar and tamarack ties were put in during last year. Line and surface are in ordinary adjustment. The drainage of the road-bed requires considerable attention; the shoulders of the bed are not rounded out enough. These defects will probably be remedied as the season advances, but to perform the work satisfactorily a coating of good ballast is indispensable.

The fencing is in very fair order. The weeds and underbrush have not been cut this year. Many highway crossing signs were not legible, being badly weather beaten, and should be replaced with the new standard sign prescribed by statute. Cattle-guards are not well maintained, there being hardly any on the road. Those which have been provided are mostly of the box or pit kind. A few are made of strips of bevelled-edge scantling placed upon the ties, and running between and outside the track and parallel with it.

Commencing at Richford, the spur track has two trestles both in good condition. No. 50, stringer bridge, 60 feet long, with one trestle pier in middle; a close floor system; good throughout.

No. 49, trestle bridge, formerly a pile bridge, practically new; good floor system.

No. 48, Howe truss bridge, covered, 160 feet long, two spans, being repaired. The braces have been reinforced, new rods added, and a close system put on.

No. 38, a timber trestle, has two timber bents at the ends, and three pile bents between. Some of the pile bents are decayed. It is intended to renew this bridge this summer.

No. 33 bridge has two timber and three pile bents, too widely spaced ties and no guard-timbers. This should be rebuilt.

No. 30 is a trestle bridge the same as No. 33.

No. 26 is a short stringer bridge with good floor system.

No. 21 is a trestle bridge, 75 feet long, having seven bents, very poor floor system and no guard-timbers.

No. 15, Howe truss bridge, covered, three spans, total length, 460 feet; all good throughout. The station buildings were all inspected and found to be fairly maintained. The platforms of some were broken. The station at Enosburgh Falls was burnt last fall, and a part of the freight depot was being used temporarily.

The second inspection was made by the full Board, June 10, 1890. The company has laid about three miles of steel between Richford and East Richford, St. Albans and Green's Corners. A slight coating of new ballast was noticed in places, but a scarcity of ballast still exists. Attention should be given to this at once. The road was quite good in places. Two miles of woven wire fencing have lately been made. An improvement has been made in the flooring of some of the trestles and bridges, and many of them have been strengthened; no improvement made in the cattle-guards or highway crossing signs. A very neat, new depot has been built at Green's Corners. At North Sheldon the depot is being repaired, and when finished will be in good condition.

Enosburgh Falls has a new, model depot, built last fall, with two good waiting-rooms. It is nicely furnished, and is heated by a furnace. Care appears to be taken to keep the road in safe operating order, and the renewals are sufficient for that purpose.

MONTPELIER AND WHITE RIVER RAILROAD.

Line of Road.—Montpelier to Williamstown, 13.50 miles; Sidings $\frac{1}{4}$ mile. Gauge of road, standard.

History.—Road opened to Barre in 1876, and extended to Williamstown in 1888, and is expected to be continued on to its White River terminus at Royalton, eventually.

Inspections.—Made Aug. 1, 1889, and Aug. 19, 1890. The road-bed from Montpelier to Barre is in very fair condition, but between Barre Junction and Williamstown, a distance of a little over six miles, it is only partially ballasted, showing that it was hastily constructed. This portion of the road needs much work upon it in order to put it in good safe condition. The road-bed on some of the embankments is too narrow and not properly ditched. Rails are partially steel and iron. The ties are generally in good strong life, and spaced about 3,000 per mile, being cedar and tamarack; fencing and cattle-guards not maintained; weeds and underbrush neglected. All of the trusses, pile, and trestle bridges were found to be in safe condition and sufficient in strength of timber. There is a large amount of trestle bridging that should be filled; trains move carefully over these structures, and it is the policy of the road to fill the same as rapidly as may be until the trestle work is all displaced, as evidenced by the steam shovel being at work at the time of our last inspection. The depot at Barre is of brick, modern, and tidily kept; the only defect noted was that not enough sittings are provided for waiting passengers. More attention to the wants of the public in this respect would undoubtedly be appreciated. Two new depots have been built during the past two years, at South Barre and Williamstown; they are well designed, well furnished and very neat, and among the best depots of this system.

NEW LONDON NORTHERN RAILROAD.

Line of Road.—From New London, Conn., to Brattleboro, Vt.; 121 miles, of which only 10 miles, South Vernon to Brattleboro, are in Vermont.

Sidings, etc., 27.32 miles; about 1.5 mile in Vermont. Gauge, standard. Rails, all steel, 57, 58 and 60 pounds per yard.

History.—This road was leased December 1, 1871, to the trustees of the Central Vermont Railroad Company for the term of 20 years, the lessees assuming all responsibilities and paying an annual rental of \$150,000 per year in quarterly instalments, with an additional \$15,000 for every \$100,000 of gross earnings in excess of \$510,000.

Inspections.—Inspected July 19, 1889, by Commissioners Ormsbee and Fletcher, Clerk Watson and Prof. H. A. Hitchcock.

The road-bed was found in excellent condition and well cared for. The rails are all steel, weighing 60 pounds to the yard. The ties are sufficient in number, but somewhat wanting in soundness. There are only two bridges on the line; one a Howe truss, open, of 60 feet span, over a brook; the other a truss beam bridge, of 25 feet span, over a highway, the abutments of which are good and sufficient. Independent of the abutments these bridges are reasonably safe, but are not what they should be on this line, and do not compare favorably with bridges of like span and purpose on the Vermont Valley Railroad, its northern connection.

In all other respects the physical condition of the road was good. The station accommodations of the road are good and ample.

Inspection of 1890 was made July 2 by Commissioner Ormsbee and Clerk Watson, accompanied by E. F. Brooks, Division Superintendent of the Central Vermont Railroad.

The condition of the road-bed and track remains substantially the same as in 1889, and also the bridges, excepting the Howe truss bridge, which has been strengthened by the addition of two framed supports.

The condition of the ties has been somewhat improved by renewals since the last inspection.

Stations were found to be in good condition and ample; the fencing good, and the law in reference to highway crossing signs and blocking of frogs, switches and guard-rails, duly observed.

RUTLAND RAILROAD.

Line of Road.—From Bellows Falls to Burlington, 119.70 miles. Sidings and other tracks, 26 miles. Rails, steel, 56 pounds weight. Standard guage.

History.—Chartered as the Champlain and Connecticut Railroad Company, November 1, 1843. Charter modified in 1847 and name changed to Rutland and Burlington Railroad Company. Opened for travel in 1849. It was taken possession of and operated by the trustees of mortgage bonds in November, 1853.

In 1867 the road was reorganized under the name of the Rutland Railroad Company. In December, 1870, it was leased to the management of the Vermont Central Railroad for 20 years from January 1, 1871, at an agreed annual rental, which lease was subsequently modified and the rental reduced until finally it was agreed that the Central Vermont Railroad Company should pay for the use of this road and the Addison Railroad a minimum yearly rental of \$250,000 and \$8,000 for organization expenses. And it is now operated by the Central Vermont Railroad Company.

It is said that this road will, at the expiration of the above named lease (January 1, 1891), pass under the management and control of the Delaware and Hudson Canal Company.

Inspections.—Made July 10 and 11, 1889, by the full Board and Prof. H. A. Hitchcock, accompanied by L. E. Roys, Bridgemaster.

Road-bed in fair condition and generally well cared for, but wanting somewhat in ballast. Generally the ties are sound, but not a few are decayed to such an extent as to fail to be a support to the rail or to hold the spikes securely.

The bridges on this line are very numerous—121 over eight feet span—and, generally speaking, are old and were not designed or intended originally for the present traffic; and, in many instances, the approaches are short of what they should be to give assurance of safety. Where most needed,

the bridges are being supplied with modern floor systems, but in this regard there is a considerable want. Assurance, however, was given by Bridgemaister Roys that many of these bridges were to be strengthened and the more objectionable features pertaining to the same improved this season.

The road-bed was well policed, and was in as good condition as the ballast at hand would permit. The stations on this road are not inviting, but, such as they are, are fairly well kept and clean. To make special mention, Brooksville still remains without a depot, an old passenger car upon a side track being made to serve for that purposes; the station at Middlebury is very poor and entirely inadequate for the place, and in no respect what it should be; a depot is still wanting at Proctor, the one there having been burned in 1888; and the one at Rutland greatly needs renovating and modernizing. In other respects there have been no improvements since the last inspection.

The inspection of 1890 was made June 30 and July 1, partly by Commissioners Pingree and Ormsbee and partly by the full Board, accompanied by J. W. Hobart, General Manager, Jesse Burdett, Division Supt., E. W. Horner, Roadmaster, and L. E. Roys, Bridgemaister.

The road-bed was in substantially the same condition as last year, there being no improvement in ties as a whole or ballast.

The bridges have been in many instances reinforced and strengthened, and to several, new and sufficient floor systems have been added, but scarcely any new structure has been erected. It is evident that the management appreciates the real condition of these numerous bridges, but omits to build anew when seemingly the public safety requires much new work for the growing heavy traffic.

The fencing of the line, as a whole, is in a very poor condition, and in many places affords but little or no security to the occupant of adjoining land or to public travel.

It was also noticeable that in many instances there was a want of sufficiency of planking at highway crossings.

Stations remain as last year, with the following exceptions : The one at Middlebury has been burned, and a dwelling-house at the opposite end of the village, but convenient to the track, is made to serve as a station, but accommodates poorly the wants and needs of the community. A new and modern depot should be erected here at an early day. The depot at East Clarendon has also been burned since the last inspection and not as yet rebuilt.

The statute requirements as to highway crossing signs and the blocking of frogs, switches and guard-rails have been fairly well observed and complied with.

From observation and inquiry, the Board is satisfied that the general service rendered to the public in the running of trains so as to accommodate it, and in the furnishing of comfortable and well equipped cars is all that could be reasonably asked or required.

The somewhat forlorn and wanting condition of this line of road, as above set forth, may probably be accounted for by the fact that it is being run under an expiring lease.

True it is, that no accident has occurred upon this line during the time covered by this report, by reason of insufficient road-bed or bridges, but this is doubtless due to the watchfulness and efficiency of those having it directly in charge, rather than to a proper condition of either. And the Board is of the opinion that a large outlay of money in ballasting and in the construction and repair of stations and the erection of modern bridges, including more suitable and safer approaches to insure to the public a reasonable degree of satisfaction and safety, is necessary.

CLARENDON AND PITTSFORD RAILROAD.

Line of Road.—From Proctor to Pittsford quarries, $2\frac{1}{2}$ miles; and also from Proctor to Centre and West Rutland, $7\frac{1}{2}$ miles; total length of main line, 10 miles, with 3 miles of sidings.

History.—Organized under general laws, Sept. 10, 1885. Construction commenced at once, and two miles completed the first year; the balance was completed within the next three years.

Inspections.—Inspected by Commisioner Fletcher and Clerk Watson, July 17, 1889, and by Commissioners Pingree and Ormsbee, July 8, 1890.

The road-bed is thoroughly made. The rails are of 70 pounds steel for the most part, and the balance is 62 pounds per yard. All the bridges, save one, which is a Howe truss, are riveted lattice, and plate girder iron. The ties are in good space and condition. It is a well built road, and in every way equipped for the heavy traffic required, which is mainly the marble of the great quarries it was made to reach.

CONNECTICUT RIVER SYSTEM.

ASHUELOT RAILROAD.

Line of Road.—From South Vernon, Vt., to Keene, N. H., 24 miles, of which only .71 of a mile is in this State. Sidings, 3.79 miles; .30 of a mile in Vermont. Gauge, standard.

History.—Chartered December 27, 1844, and opened for business January 1, 1851. Reorganized in 1877, on a stock basis of \$210,000, and leased to the Connecticut River Railroad Company, April 21, 1877, for 99 years, at an annual rental of 30 per cent. of the gross receipts, now equal to 8 per cent. on the capital stock, all of which is held by the Connecticut River Railroad Company.

Inspections.—Made July 19, 1889, by Commissioners Ormsbee and Fletcher, Clerk Watson and Prof. H. A. Hitchcock.

This is a surface road, and has no bridge within this State, excepting a few feet of the bridge over the Connecticut river, which bridge at the time of this inspecton was being dismantled; and work was going on for the construction of a new iron bridge in its stead.

The road-bed, including ties and track, was found to be in excellent condition; the rails are steel, weighing 56 pounds per yard.

The inspection of 1890 was made July 2. The old bridge over the Connecticut river had, since the last inspection, been replaced by an iron, deck bridge of riveted lattice pattern, but the floor system had not been completed, guard-rails not having been put on the west approach as designed. But the general plan of the work going on gives assurance that when completed the bridge will have all the modern appliances of safety.

The road is properly fenced, and its general good physical condition of last year was found to be the same this year.

The Vermont terminus of this road has its station accommodations—which are convenient and ample—in connection with the New London Northern Railroad Company at South Vernon.

VERMONT VALLEY RAILROAD.

Line of Road.—From Bellows Falls to Brattleboro, 24 miles. Double track, 2.5 miles; sidings, 1.3-10 miles. Standard guage. Rails are all steel—20½ miles of 56 pounds, 1½ miles of 66 pounds, and 2 miles of 70 pounds weight.

History.—Charter granted Nov. 8, 1848. Road opened for travel in 1851. Leased to trustees May 12, 1865, for ten years at an annual rental of \$60,000. In January, 1871, the lease was transferred to the Rutland Railroad Company, by which it was operated until April 5, 1877, when it was surrendered to the present company, which has since operated it.

Inspections.—Made July 20, 1889, by Commissioners Ormsbee and Fletcher, Clerk Watson and Prof. H. A. Hitchcock, accompanied by John Mulligan, Superintendent; James E. Goodwin, Assistant Superintendent; and William E. Clark, Road and Bridgmaster.

The road-bed was in first-class condition in all respects. The ties are superior and are laid 3000 to the mile.

Bridges, including approaches, were found to be in excellent condition, excepting the Saxton's river and West river, deck bridges, and the floor system of the Dummerston iron-plate girder. As to the latter, the special attention of the officers of the road was called to it, and immediate repairs were promised, and the same were in fact made within thirty days, to the satisfaction of the Board. And as to the two former excepted bridges, assurances were given that the same would be rebuilt within the then next year.

The fencing was found to be unusually good and sufficient.

The depots were found to be generally good and sufficient, although old, except that at Westminster, which was open to criticism, the same being in need of renovation and repairs, and more care and attention in regard to cleanliness.

Inspection in 1890 was made July 2 by Commissioner Ormsbee and Clerk Watson, accompanied by James E. Goodwin, Assistant Superintendent, and W. E. Clark, Road and Bridgemaister.

The condition of the road-bed, including the ties and rails, was found to be first-class; and the bridges as a whole superior in structure and in condition satisfactory (excepting the Saxtons river deck bridge, which is to be replaced by an iron, riveted lattice bridge this year.) The West river deck bridge has been replaced by a superior iron, riveted lattice bridge, since the inspection of 1889.

The highway crossing signs, cattle passes, road-ways, sluices and open water-ways, were found to be in superior condition.

Stations remain substantially the same as in 1889, except that the one at Westminster has been renovated to the satisfaction of the Board. Frogs, switches and guard-rails are blocked according to law.

The attention paid by this road to the masonry and approaches to bridges is commendable.

DELAWARE AND HUDSON SYSTEM.

SARATOGA DIVISION.

RUTLAND AND WASHINGTON, AND RUTLAND AND WHITEHALL
RAILROADS.

Line in Vermont.—From New York State line to Castleton, 6.83 miles, and 1.85 miles of sidings,—and from Rutland Vermont to New York State line near Middle Granville, New York, re-entering Vermont near Pawlet Station and continuing in this State to State line again between Rupert, Vt., and Salem, N. Y., being 36.65 miles of main line in this State; 11.76 miles of sidings.

History.—These lines were originally the Rutland and Washington and the Rutland and Whitehall Railroads, and were leased to the Rensselaer and Saratoga Railroad Company, operated by it for several years, and March 1, 1871, were leased to the Delaware and Hudson Canal Company with other roads, and have since been operated by that Company.

Inspections.—Made in June, 1889, and in July, 1890.

This road is in good physical condition every way. It has steel rails of 62 to 68 pounds weight on its main line. Its bridges with one exception are of iron of approved design and recent construction. The road-bed and track are excellent, being in good ballast and well dressed throughout.

The cattle-guards and their appurtenances and the fences are in excellent condition and the depots are generally respectable and well kept. The highway crossing signs are not of the statutory type, but are adequate to the full purpose of the intent of the existing law,—and as replaced are promised to conform to the standard sign of the laws of 1888, and no road in the State is less subject to a just criticism than this.

Yet the Board feels bound again to invite the attention of this company to the first bridge on its line west of Rutland village, and to warn it that it is not deemed such as it should be for its heavy growing traffic.

The report of the inspection of this bridge by Prof. Fletcher, referred by the Board to the Company, and its reply thereto, are here referred to, and may be found under "Special Inspection Report" in Part II.

FITCHBURG SYSTEM.

WESTERN DIVISION.

Line of Road.—From Massachusetts State line to New York State line, through the town of Pownal, Vermont, 6.49 and 6.19 miles, being double track.

History.—Chartered March 3, 1842. Total length of lines operated (main line owned, 189.96; branch line owned, 109.09; line leased, 70.03) 369.08 miles.

This road now operates in this State the lines formerly owned and operated by the Troy and Boston, and the Boston, Hoosac Tunnel and Western Railroad Companies, which were parallel roads.

The Troy and Boston Railroad Company, a corporation of the State of New York, was consolidated with the Fitchburg Railroad Company, May 3, 1887, under the laws of New York and Massachusetts. The Southern Vermont Railroad, from New York State line to Massachusetts State line, owned by the Commonwealth of Massachusetts, was previously leased in perpetuity to the Troy and Boston Railroad Company at an annual rental of \$12,000,—and was that part of the latter road operated in this State.

The Boston, Hoosac Tunnel and Western Railway and its leased line, the Troy, Saratoga and Northern Railroad, were purchased by the Fitchburg Railroad Company, June 1, 1887, which latter road now operates the two above named lines in this State as double track.

Inspections.—Made July 18, 1889, by Commissioners Ormsbee and Fletcher, Clerk Watson, and Prof. H. A. Hitchcock, accompanied by John Adams, General Superintendent,

Crandell, Division Superintendent, E.K. Turner, Chief Joseph Civil Engineer and A. S. Cheever, Assistant Civil Engineer.

The road-bed was found in first-class condition. Ties sufficient in number and condition sound. Track steel, 62 pounds to the yard.

The abandonment of the track and road-bed of the Troy and Boston Railroad and the two bridges thereon, as contemplated and noted in the report of former inspection, had been consummated, the road-bed of the Boston, Hoosac Tunnel and Western line having been widened and another track added for four miles.

All bridges are of iron, and are superior and sufficient. There is but one wooden trestle,—at the East end of the bridge over Hoosick river, and this was found to be in good condition.

The stations at Pownal and North Pownal were in good condition,—commodious and ample.

The inspection of 1890 was made July 3 by Commissioner Ormsbee and Clerk Watson, accompanied by the General and the Division Superintendents.

The general condition of the road-bed, bridges and stations is the same as last year. The track is in good condition and a portion of it is being relaid with 76 pounds steel rails. Fencing is good and well looked after and cared for.

The law in reference to highway crossing signs and the blocking of frogs, switches and guard-rails has been well observed. As a whole this line is in excellent condition.

GRAND TRUNK SYSTEM.

ATLANTIC AND ST. LAWRENCE RAILROAD.

Line of Road.—Embraces line from boundary between the Province of Quebec and the United States to the boundary between the States of Vermont and New Hampshire, in this State, and continues thence onward to Portland, Me. Length

of main line in Vermont, 30.62 miles, with sidings aggregating 4.93 miles.

History.—Chartered as the Atlantic and St. Lawrence Railroad in Maine, Feb. 10, 1845, in New Hampshire June 30, 1847, in Vermont, Oct. 27, 1848. Authority being granted for the construction of the line to the Canada boundary, construction commenced July 4, 1846, and the road was opened from Portland, Me., to Island Pond, Vt., Jan. 29, 1853. On the 5th of August of the same year the line was leased to the Grand Trunk Railway Company of Canada for nine hundred and ninety-nine years, the lessee assuming all obligations and guaranteeing six per cent. on stock; the authority being granted for the lease by an Act of the Legislature of Maine, approved March 29, 1853, and by an Act of the Legislature of New Hampshire, July 12, 1856.

Inspections.—Made July 26, 1889, by the full Board and Prof. H. A. Hitchcock, Civil Engineer. This road is thoroughly constructed and maintained. The grades and curvatures are slight. The road-bed is wide, well filled out at shoulders, ballasted and drained, and free from weeds. The road-way is well fenced where needed and underbrush well cleared up. The ties are sound and spaced 2,640 per mile. Four hundred new ties per mile have been put in this season. The rails are steel, and weigh 65 pounds to the yard throughout the line, and all bridges are iron,—lattice, link and pin and plate girders,—and all are provided with a modern floor system. The abutments, piers and culverts are solid masonry. Cattle guards are well maintained, and the highway grade crossings are all provided with warning signs. Semaphore switches with lights are in use. The frogs and switches are all blocked as required by law. The stations are in good order. The one at Island Pond, Vt., where we criticized the condition of the water-closets in 1888, has been remedied and was found in good order.

Inspection for 1890 was made by the full Board, and was

rapidly done, but with sufficient care for a road so well maintained. It is in fully as good condition as at the time of the last inspection. Quite a large renewal of ties was noticed. As a whole the road is in excellent condition.

HOOSAC TUNNEL AND WILMINGTON RAILROAD.

Line of Road.—From Hoosac Tunnel, Mass., on the Fitchburg Railroad, to Readsboro, Vt. Length of road, 11 miles, of which 3 miles of main line and 1 mile of sidings are in Vermont.

Narrow guage, 3 feet. Rails, steel, 36 pounds per yard.

History.—Chartered Dec. 28, 1886. This road was built by the Deerfield River Company to reach its wood pulp and saw mills at Readsboro. It was opened for business in August, 1885. Shortly after the present company was chartered that part of the Deerfield River Company's railroad in Massachusetts was acquired, and a lease taken of the portion in Vermont, including rolling stock.

Inspections.—Made July 19, 1889, by Commissioners Ormsbee and Fletcher, Clerk Watson and Prof. H. A. Hitchcock.

The road-bed was found to be in good condition, considering the location of the road and its business. The rails are all steel, weighing 36 pounds to the yard, and alignment of track is good. The bridges are few in number and cheap in construction, and are generally wanting in safety appliances,—guard-rails and proper coverings,—and but little attention is paid to fencing. At the time of this inspection a new iron, riveted lattice deck bridge was being built over Deerfield River from Readsboro station to the village, for joint railroad and highway use.

The only regular station is at Readsboro, which was found to furnish adequate depot accommodations.

Inspection in 1890 was made July 2, by Commissioner Ormsbee and Clerk Watson, accompanied by H. K. Blanchard, General Agent.

The road-bed was in the same condition practically as at last inspection, and the ties were found to be generally good, and some improvements were going on in the way of filling openings. The condition of the bridges has not been improved any since last year. The Sherman's bridge was found, upon examination, to be unsafe for travel, by reason of decayed timber in abutments, and the General Agent was advised by the Board to call the immediate attention of the directors to the condition of this bridge, and have it repaired at once, and to inform the Board of the action of the directors within thirty days.

The new iron bridge referred to in the report of last inspection, has been completed, and is a credit to the road and also to the town of Readsboro which has shared in its expense.

Since the inspection of 1889 half a mile of track has been relaid with a heavier rail—60 pounds weight per yard.

In other respects not noted there have been no changes in the physical condition of this road.

LEBANON SPRINGS RAILROAD.

Line of Road.—From Bennington to Chatham, N. Y., 58 miles, of which 5.925 miles are in this State. Full sidings, 4.9 miles, of which .85 are in Vermont.

A standard guage road with rails all steel of 60 pounds weight per yard.

History.—The New York, Rutland and Montreal Railway Company obtained its charter in 1883, with a view to consolidate the Lebanon Springs Railroad Company of New York with the Bennington and Rutland of Vermont.

The Lebanon Springs Railroad Company, chartered March 5, 1852, built this road and operated it from 1869 to 1880, when it went under a receivership,—was foreclosed and sold June 12, 1885, to divers of its bond holders, who transferred it to the said New York, Rutland and Montreal Railway

Company, and, after being operated by that company for a brief period, it again passed under a receivership, and is at present operated by the receiver of the Lebanon Springs Railroad Company,—all accounts being kept separate from those of the latter. Thus far the intended consolidation above named has not been effected.

Inspections.—Made 1889, July 11, by Commissioners Ormsbee and Fletcher and Clerk Watson, and July 2, 1890, by Commissioners Pingree and Fletcher.

This road is mainly a surface road. The bed is well ballasted, but grass-grown. The grade is considerable from the extreme points in Vermont to the centre. The curves are light and alignment good.

The ties are in good condition and are spaced 2,640 to the mile. The fences and crossing signs are well up, but cattle guards are lacking.

The battle monument spar of 3-4 mile in length, appears to have served its purpose for the present, the monument being practically completed.

MAINE CENTRAL SYSTEM.

UPPER COOS RAILROAD.

Line of Road.—From North Stratford, N.H., to Province line in Canaan, Vt., 23.7 miles, of which 1.97 mile is in Vermont. Rails, steel, weighing 56 pounds to the yard. Gauge, standard.

History.—This road was chartered in 1883, but the work of construction was not begun until 1888. Ground was broken in June of that year, and the road was opened for business on January 1, 1889. Its continuation in the Province of Quebec is the Hereford Railway, which connects at Cookshire with the Canadian Pacific Railway.

The whole line from North Stratford, N.H., to Cookshire, P.Q., was leased to the Maine Central Railroad Company, May 1, 1890, for the term of 999 years. The lessee at present

has no road of its own between Whitefield and North Stratford, N. H., having to make use of the Grand Trunk Railway and the Concord & Montreal Railroad, but it is now building a connecting link here, so that its system will soon have direct connection with the Canadian Pacific Railway at Cookshire, P. Q., over its own lines. This new link which is now being constructed will be 33 miles long, and will run partly through the towns of Guildhall and Maidstone in this State.

Inspection.—The first and only inspection of this road was made by the full Board, June 11, 1890. The road was well built, and it was found to be in excellent condition. It is well ballasted with ballast of the best quality, and it is generally well worked. It is almost wholly a surface road, having no cuts or fills of any account, especially in this State. The grade and curves are light throughout and the alignment generally good.

The ties are mostly spruce, chestnut, cedar and hackmatack, spaced 2,800 to the mile, and were found to be in good life and seasonably renewed.

The fencing, which is largely wire throughout, cattle-guards and highway crossing signs are all maintained according to law.

There is only one bridge of any considerable dimensions on this road in Vermont, and this is the Howe truss bridge across the Connecticut River, between Canaan and Stewartstown, N. H., 300 feet long, two spans, and only a small part of this is in this State. This is a model bridge in every way, except it is built too narrow to fully meet the requirements of our statute law. Its floor system and solid masonry abutments and pier are among the best.

There is now but one depot in this State, at Beecher's Falls. This is commodious and has all necessary conveniences to meet the requirements of the patrons of the road and is cleanly kept. However, it is to be remodelled and enlarged

to furnish adequate accommodations for the United States Customs office here. The Columbia Bridge station in New Hampshire accommodates the citizens of Lemington in this State.

The frogs, switches and guard-rails on the line were found blocked according to law. The trains on this road are mostly mixed, and accordingly are exempt from the provisions of law requiring the use of locomotive steam heat in heating the passenger cars.

MONTPELIER AND WELLS RIVER RAILROAD.

Line of Road.—Main line from Montpelier to Wells River, 38.20 miles; Barre Branch from Barre Junction to northern terminus of the Barre Railroad in Barre, 3.80 miles. Sidings, 5 miles.

History.—Chartered Nov. 6, 1867. Road opened Nov. 24, 1873. The original capital stock was \$400,000. Subsequently the road was bonded for \$800,000, but the interest on the bonds being defaulted for several years, the bond-holders foreclosed and took possession of the road and put the same into the hands of trustees, March 1, 1876. Company was reorganized Jan. 1, 1877. The face of the bonds that were foreclosed being made the capital stock.

The Barre Branch Railroad was organized under the general law in 1888, with a capital stock of \$80,000; was constructed in 1889 and upon completion was leased to the Montpelier and Wells River Railroad, June 1, 1889, at an annual rental of \$4,800.

Inspections.—Made July 31, 1889, by Commissioners Pingree and Ormsbee and Clerk Watson. No material change has been made in the physical condition of this road. Renewals and betterments have been made to some extent, and the general maintenance was fully as good as in 1888. On page 72, of the Railroad Commissioners' report for 1888, may be found a full report of the road and its condition.

The road-bed is in good condition and generally well worked. Many ties are in poor life but are being renewed, 20,000 being put in this year. Weeds and underbrush on side of road-way are not cut as required by law. All highway grade crossings have caution signs; a few are in poor condition and should be replaced.

A bad feature of this road, is its curves, which are many and very sharp. They are all well braced and kept in good order. The longest piece of tangent track is a little over one mile. At many points the degree of curvature should be reduced, and many curves might well be straightened. A much lower rate of speed should certainly be adopted by this road in running its summer trains. This is suggested, notwithstanding that no derailment has occurred since this Board was constituted.

Another very serious feature is the bridges. The defects in regard to the bridges noted in our last inspection have in some instances been remedied, but the Board calls the attention of the company to the lightness and the poor floor system generally of most of its bridges. Three years have elapsed since our first inspection of the road, and during that time some work has been done to improve the condition of the bridges, but the Board is not satisfied with their present condition as a whole. The ties on all bridges should be strong enough and sufficiently close together to carry derailed wheels over them in safety, and the placing of blocks between or notched guard timbers at the end of the ties to prevent them from bunching together is recommended.

The station buildings are as before reported, cleanly and in good order and fairly furnished.

Inspection made in 1890, June 19, by the full Board. This road was found in much better condition than at any previous inspection. A very great improvement is being made in the road-bed. Thirteen miles of the road are to be rebalasted and surfaced; a portion of it has already been done. A large renewal of ties was noticed. At two points the curves

have been straightened, making a great improvement. There are $3\frac{1}{2}$ miles of new 60 pounds steel laid between East Montpelier and Plainfield. The ditches are well opened, and the weeds and underbrush are well cut. The fencing is but little improved since the last inspection.

Quite a number of the bridges have been reinforced, and have had a modern floor system added, showing a desire on the part of the company to remedy the defects noted by the Board at the last inspection; but the Board would call special attention to the poor condition of the Gravel Pit deck bridge, and also to bridges Nos. 1, 2, 3, 4, 5, 6, 7, situated in the town of Ryegate, all of which had insufficient floor systems, although No. 7 was being repaired at the time of inspection. The two pile bridges at Moore's Mill are poor. Some of the highway crossing signs should be replaced. Switches and guard-rails are all blocked according to law. The stations have in part been renovated and painted and are in good, neat condition.

The Barre Branch was found to be in good condition throughout, having a good road-bed, well ballasted, and steel rails; the fencing and warning signs fairly well maintained. There is only one bridge of any length on this branch, and it is in good condition, being built only two years ago. No stations.

WOODSTOCK RAILROAD.

Line of Road.—From White River Junction to Woodstock, 14 miles, with $\frac{3}{4}$ of a mile of sidings. The gauge is standard, 4 feet $8\frac{1}{2}$ inches. The rails are iron and steel, weighing 56 pounds per lineal yard.

History.—The Woodstock Railroad Company was chartered by the Legislature of Vermont, Oct. 30, 1863. Owing to a failure to procure subscriptions to the capital stock sufficient to justify the directors in commencing work upon the road, there was some delay in the construction, and it was not begun until April 21, 1868. The original contractors failed in

1870, before their work of construction was finished, and this embarrassment, together with the delay in getting the road bonded for \$250,000, still further postponed the completion of the road. The construction was finally finished to an extent so that the road could be operated, and it was opened for travel Sept. 29, 1875.

The road is surveyed from White River Junction to Rutland, and the time for the construction of the whole line has three times been extended by the General Assembly, the last time Nov. 19, 1884.

The cost of the road thus far, as evidenced by its stock and bonds, has been \$509,000. The capital stock, which has only a nominal value, is \$259,000. The funded debt is \$250,000 in first mortgage, seven per cent. bonds, the interest upon which has been guaranteed and paid by the town of Woodstock. These bonds matured April 15, 1890, and the road passed into the hands of the bondholders.

The company was reorganized July 1, 1890, but the management remains practically the same as before.

Inspection, 1889.—Made July 9, by the full Board, accompanied by Prof. H. A. Hitchcock, Civil Engineer. The road-bed was found in good condition for the light traffic over it, being fairly well ballasted throughout.

Some new ballast beyond what is ordinarily necessary had been added in places, to the visible improvement of the road, since 1888. The road is well adjusted and there are few sharp curves.

Iron rails were originally laid on this road but renewals have been of steel, of which there are now $3\frac{1}{2}$ miles. Fifty-five tons of new steel were laid in 1888-'89. The iron rails are in good condition and are but little worn.

The ties are mostly cedar and hemlock, and are in good life, the renewals having been timely. They are spaced 2,400 to the mile. 2,000 cedar and 500 hemlock ties have been laid within the past year to replace those needing renewal.

Cattle-guards are generally wanting and should be provided. Crossing signs, which are mostly of the old statutory type, are maintained and are fairly good. A new one erected between Hartford and White River Junction, although differing from the old, or standard type prescribed by law, is plain and adequate for the purpose designed.

The road is not wholly fenced, but generally there are good fences where necessary. Weeds, grass and bushes are not largely cut along the road-way. The ditching is fairly good.

There is no bridge of considerable length on the road, except the one across the Ottaquechee river near the Dewey's Mill station. This is a wooden, deck bridge, of Howe truss pattern, with arches, and is light for heavy traffic. It has a single span of 200 feet, and a maximum height of 163 feet. It has a modern floor system with outside guard timbers; and inside guard-rails have been added. The abutments are solid masonry and substantial. The bridge is carefully looked after, and is inspected every two months. Besides this bridge, there are but seven small openings on the line. These have good stone wall abutments upon which are stringers with short ties and no guards.

There have been no changes in the passenger depots since 1888.

Inspection, 1890.—Made June 25. The physical condition of the road was found in substantially the same condition as in 1889. About 2,500 ties have been renewed within the past year and fifty tons of steel rails of 56 lbs. weight have been laid. Although there are few sharp curves, there are some heavy grades which cannot well be avoided or improved,—the maximum being on the west side of Shallis hill, where it is 125 feet to the mile.

The track is in good line and surface. There have been only the ordinary renewals of ballast during the past year.

The passenger depots remain the same as last reported.

Frogs, switches and guard-rails have been blocked pursuant to law.

Most of the trains run on this road are mixed trains, and, accordingly, the passenger cars are heated by stoves.

SPECIAL INSPECTION REPORTS.

REPORT UPON THE PHYSICAL CONDITION

OF THE

RAILROADS OF THE STATE,

BY

PROF. HIRAM A. HITCHCOCK, CIVIL ENGINEER,

WHO ACCOMPANIED THE BOARD UPON ITS ANNUAL

INSPECTION OF RAILROADS IN 1889.

The Vermont Board of Railroad Commissioners, Hon. Samuel E. Pingree, Chairman :

Gentlemen:—In response to your request I beg leave to submit the following report relating to my inspection of the railroads of the State of Vermont, made with members of your Board in June and July, 1889.

It may be well to preface my report by calling attention to the fact that owing to the large area to be covered and the short time allowed, it was in most cases impossible to make more than a cursory examination of the most important points to be considered; there was no time to take such notes as one would want, and the information furnished by the railroads was of no practical value in forming a detailed opinion of the actual condition of the track and bridges—especially the latter. I will call attention to the following subjects :

Track.—As a general rule the main tracks throughout the State are in fair condition; on some roads the track is in excellent condition. But on nearly all the roads I have examined I have found loose or missing bolts in fish plates, cracked rails, and poor ties on and near bridges—defects wholly inexcusable.

Alignment.—Regarding alignment, it is generally good, but I imagine that the increased speed of the past few years has not been

accompanied by an increased elevation of outer rail. Too much stress cannot be laid on the necessity of a careful inspection of track. I observed on different roads of the State rails retained on the main line that were hardly fit for sidings. And in one case, I found a rail (on a curve and within 200 feet of a bridge) with a crack several inches long and wide enough to admit the large blade of an ordinary pocket knife.

Bridges.—I have made special reports on some bridges in the State, in which I have entered more fully into specific defects. What this report contains of the subject of bridges is general.

I believe that the number of first-class bridges (both of iron and wood) is rapidly increasing and that a steady improvement is going on.

The modern railroad bridge, designed and built by any of the large and reputable bridge works, figured for modern traffic and properly treated as regards approaches and re-railing devices, need not be considered now. But the large majority of the bridges in the State—bridges designed for a far lighter traffic than they are now called upon to bear, and subject to more or less unscientific repairs, do require special notice. If an old bridge cannot be replaced by a new one, repairs should be so made that the last state of the bridge be not worse than the first. It is quite common to find old spans with horses so placed as to change counter into main braces. This addition when not accompanied by reinforced braces often (not necessarily) brings greater strains on the pieces than they can safely carry. Again, pieces are inserted which make it impossible to analyze the strains.

Approaches, Floor Systems.—But the best bridges as far as actual strength is concerned may have poor floor systems. The absence of re-railing devices, improperly-spaced ties, inadequate guard timbers or guard rails is noticeable on many otherwise good bridges. There seems to be a marked increase in the number of good floor systems, but there are still left a large number of bridges having wretched apologies for floor systems; no guard-timber, no guard-rail, no re-railing device, and ties so placed as to readily admit of bunching.

Sometimes bridges evidently designed for straight track are placed on curves and are called upon to bear loads (due to centrifugal force) greater than those for which they were designed. A comparatively new bridge on one of the main roads of the State is for this reason to be replaced by a stronger one, the present one being put on a branch line.

In conclusion, I call attention to the advisability of having such information regarding the bridges of the State—their dimensions, materials, etc., etc.,—that the Board, or its Engineer, may know their actual condition.

Respectfully submitted,

HIRAM A. HITCHCOCK.

REPORT ON BETHEL BRIDGE.

THAYER SCHOOL OF CIVIL ENGINEERING.

HANOVER, N. H., Sept. 1889.

Hon. Sam'l E. Pingree, Chairman Board of Railroad Commissioners, State of Vermont:

Sir:—In compliance with your orders I made an inspection of a railroad bridge situated in the town of Bethel, Vt., and on the Central Vermont Railroad, and now have the honor of submitting the following report:

Design and History.—The bridge is a Howe truss through-bridge, built of wood and iron, and of the following dimensions: Clear span, 141½ feet; depth c. c. trusses, 17 feet 10 inches; width between trusses, 16 feet 3 inches.

It is one of the oldest bridges on the road, being built in 1850.

Subsequent Reinforcement and Repairs.—The vertical rods in the two (2) end panels have been reinforced by the addition of two (2) 1½ rods; and corbels have been put in two (2) panel lengths from each end. Two timber horses have been put in—one 48 feet from south end of bridge, and one 49 feet from north end. Whether the reinforcement of rods was made before putting in horses I do not know, but it probably was. The horses are of good design and of sufficient strength; without them I do not believe the bridge could stand.

Condition of the Timber.—The appearance of the timber would indicate that it was in poor condition, but borings into some of the worst looking pieces (made by Mr. W. T. Russell, whom I found in charge of repairs at time of inspection) showed them to be in a very good state of preservation. There may be—and undoubtedly there are—places (at present inaccessible) where the timbers are badly rotted.

Condition of the Iron.—As far as I can see, the iron rods are all right as far as they go.

Strength of the Bridge.—In the following computations, I have assumed a dead load of 1,200 pounds per foot, and a live load of 4,000

pounds per foot, and have not taken into consideration the concentrated loads due to locomotives.

Computations.—End braces of original span—3, 8×9 inches; strain, 72,200 pounds; breaking load for each 8×9 inches piece, 72,400 pounds; $3 \times 72,400 = 217,200$; factor of safety, $2\frac{1}{2} \div 1.25 = 2+$ which is entirely too low for timber.

Inside end braces of end spans—1, 7×8 inches; strain, 72,200 pounds; breaking load, 50,200 pounds. I do not see why it stands at all, *unless* it is helped by the continuous top chord, which is designed to bear compression, but which here takes tension if it acts as I suspect.

End braces of middle span—2, 8×9 inches; strain, 65,300 pounds; breaking load, 82,300 pounds; $2 \times 82,300 = 164,600$ pounds; factor of safety, $1\frac{1}{2} \div 0.6 = 2.5+$, which is very much too small for timber.

Chords.—The chords are practically of same strength throughout the three spans. I have figured only the longest span (north one, 49 feet). Maximum chord strain, 23,800 pounds; available cross-section of chord=315 square inches, hence the stress per square inch is 755 pounds, and the chords are all right.

Rods.—Safe load, 10,000 pounds per square inch. North end of north truss—5, $1\frac{1}{2}$ inch rods; strain, 63,700 pounds; section of rods, 8.85 square inches; stress per square inch=7,200 pounds; rods are all right.

South end north truss—3, $1\frac{1}{2}$ rods; section, 5.31 square inches; strain, 63,700 pounds; stress per square inch, 12,000 pounds; this is too much, but is not dangerous.

Middle span, north end—1, $1\frac{1}{2}$ inches; 1, $1\frac{1}{2}$ inches; section, 2.83 square inches; strain, 57,800 pounds; stress per square inch, 20,600 pounds. This is twice what it should be, and the rods need reinforcing by the addition of one 2-inch rod or its equivalent.

Middle span, south end—2, $1\frac{1}{2}$ inch rods; section, 2.96 square inches; strain, 57,800 pounds; stress per square inch, 19,500 pounds. Rods should be reinforced by addition of one $1\frac{1}{2}$ -inch rod.

South span—This span is in same condition as the north span.

Floor system.—New ties, properly spaced, and a new guard-timber have been recently put in. The stringers are not stiff enough, there being excessive “wave motion” during motion of train.

Approaches.—I do not think there is anything absolutely dangerous about the approaches, but think they ought to be improved by the addition of “wings” to the guard-timbers.

Recommendations.—I do not consider the bridge, as it now exists, strong enough to carry the heavy traffic of the Central Vermont Rail-

road without straining the material (that is, most of it) beyond the allowable limits of 800 pounds per square inch for timber, and 10,000 pounds per square inch for iron.

I think the bridge may be made safe by following out either of the following plans:

1st. Reinforce all the braces and rods in the two end panels of each truss, with exception of rods in shore panel of the outer trusses. Put in two extra stringers (1 per rail).

2d. Put one timber horse in the middle of each of the spans. Put in one extra stringer per rail.

Note.—It may be dangerous to obstruct the stream by putting in more horses. I am not acquainted with the stream, and cannot tell.

3d. Put in a new bridge figured for modern traffic—and a little more besides.

I strongly advise following the third plan—a new bridge.

Respectfully submitted,

HIRAM A. HITCHCOCK, C. E.

A copy of the foregoing report was referred to the Railroad Company, with the following letter:

STATE OF VERMONT.

BOARD OF RAILROAD COMMISSIONERS.

HARTFORD, Oct. 3, 1889.

Col. E. Curtis Smith, 2nd Vice-President, Central Vermont Railroad Company, St. Albans, Vermont.

Dear Sir:—At the time of the annual inspection of this Board, July last, the appearance of the covered railroad bridge at Bethel (the first north of Bethel station) was such as not to inspire the Commissioners with confidence in its strength and sufficiency. Prof. H. A. Hitchcock, C. E., was, therefore, directed to make a special examination of this bridge and report to the Board. This, Prof. Hitchcock has done, and a copy of his report is enclosed to you herewith.

The Board submits (without making any special recommendation at this time) that the condition of this bridge is such that it calls for immediate attention on your part.

You will, please, at your early convenience, inform the Board as to the views and intentions of your company in regard to this matter.

By direction of the Board,

ALFRED E. WATSON, *Clerk.*

Which was duly acknowledged, and subsequently this letter was received:

CENTRAL VERMONT RAILROAD,
GENERAL SUPERINTENDENT'S OFFICE.

ST. ALBANS, VT., Dec. 19, 1889.

Hon. Board of Railroad Commissioners, Montpelier, Vt.:

Gentlemen:—Referring to your report of the inspection made of our bridge just north of Bethel, last summer, would say that in looking it over carefully, it was thought best, under the circumstances, to make a thorough examination ourselves, and we employed Mr. W. H. Burrall of Springfield, Mass., Consulting Engineer of the Boston & Albany, also of the Hawkins Bridge Co., to make the examination. As the result he makes the following report:

“I visited in company with you, and examined and measured the Howe truss bridge, just above Bethel. This bridge now stands on trestles, and is divided by them into two end spans of 5 panels each, and a centre span of 4 panels.

“The two end spans, as they stand, have a factor of nearly 5, and I consider them perfectly safe, supposing the trestles to hold the weight, and the timbers to be sound.

“The weakest spot is at the rods next to the centre rods each way, in the centre span, two rods of $1\frac{1}{2}$ inches. These are strained about 15,500 pounds per square inch, a factor of 3, or a little over. By putting in additional rods at these panel points you would get about a factor of 5 over the whole bridge.”

“Very respectfully yours,

(Signed)

“W. H. BURRALL, C. E.”

“To J. M. Foss, Superintendent.”

We shall at once put in the extra rods recommended by Mr. Burrall, which will make a factor of 5 over the whole bridge.

Respectfully yours,

J. M. FOSS, *General Superintendent.*

And the bridge was thereupon strengthened.

REPORT ON LULL BROOK BRIDGE, HARTLAND.

THAYER SCHOOL OF CIVIL ENGINEERING.

HANOVER, N. H., Jan. 1, 1890.

Hon. Samuel E. Pingree, Chairman Vermont Railroad Commission:

Dear Sir:—I have had in mind for some time past to reinforce some remarks I once made to you concerning the Lull Brook bridge on the Central Vermont Railway, in Hartland, by some definite figures.

To address you upon the subject would be an impertinence if I did not believe that the bridge is far too light for the heavy traffic over it, and that my examination has revealed a possible, not to say probable, insecurity.

A copy of the "strain sheet" furnished by the makers to the Central Vermont Railway Company shows that the designer assumed the weight of main span at 1,100 pounds per lineal foot. The actual weight is 1,150 pounds per lineal foot.

The rolling load is stated on the sheet to be a *train of consolidation engines*. Now, the heavy engines used on the road, as per diagrams from the company's office, weigh from 172,000 to 176,000 pounds—8⁶ to 88 tons on 56 feet, or 3,200 pounds per lineal foot. Hence when we found, in the first stage of the calculation, that the designer's figures for chords and end braces of the main span are based upon an assumption of only 2,500 pounds per lineal foot, we were naturally surprised.

Two such engines as aforesaid will cover more than two-thirds of the main span and all of the shorter spans. But the 2,500 pounds is not heavy enough even for train load. More than a year ago, at White River Junction, I saw a freight car weighing 26,000 pounds, and marked "50,000 pounds capacity;" this is a total of 76,000 pounds equivalent to 2,700 pounds per foot.

The Master Car-Builders' Association is now discussing the question of 60,000-pound cars,—about 2,900 pounds per foot. There are many coal cars in use which make an average train load nearly up to 4,000 pounds per foot.

However, I adopted the following very conservative basis of computation: For chords, a uniform load of 3,400 pounds per foot; for web members (posts and diagonals), 2,700 pounds per foot, with three panel lengths of 3,400 pounds per foot, thus allowing for only *one engine* at head of train. I then figured web strains on the basis of actual wheel-load concentrations, and got substantially the same results. The accompanying diagrams show how the strains from this basis compare with those of the designer.

For chord stresses, the increase is 25 per cent or more. On all web members the results are greater, except for *counters*, which seem to be amply strong.

Now, if the loading were *gradually* applied, these purely *statical* results would not disquiet us, because there is a wide margin between the designer's unit stresses of 8,000 to 10,000 pounds per square inch, and the limit of elasticity (say 25,000 pounds per square inch.)

But for such short spans, the *dynamic* effect is very great—like a

sudden impact of these heavy loads—and the statical effect is increased from 20 per cent on some members to nearly 100 per cent on a few others.

The speed of trains over the bridge has been repeatedly timed to be 35 to 40 miles per hour,—50 to 60 feet per second; hence, in one second an engine would pass to the middle of the south span, and in only half a second to the middle of the north span. This is almost the suddenness of a falling weight. It appears, then, that even the main span has not sufficient margin of strength to allow for effects of sudden impact, vibration and shock due to unavoidable imperfections to track, but is liable to have some parts strained dangerously near the elastic limit.

By recent standards the total weight of main span should be above 210,000 pounds; the actual weight is 168,000. The south span should weigh above 121,000; actual, 103,000. The north span should weigh above 66,000; actual, 57,600.

About the shorter (north) span, special remark is needed. The designer's figures show that he properly used full engine load and small unit stresses, but there does not appear to be any allowance for centrifugal force. There is a four-degree curve at each end of the bridge, and, instead of using a transition curve to ease off the effect, the elevation of the outer rail is continued several rods on to the bridge, which is itself on a tangent. Now the elevation of the rail only serves to steady the *train against overturning*; it cannot diminish the shock on the bridge. What that shock is, you may have practical demonstration of by standing below when a train at only moderate speed is crossing. The swaying and vibration are only a little less than alarming. But to be more definite, the side-thrust or centrifugal force of only an 80-ton engine at 40 miles per hour, running from a four-degree curve to a tangent, is 12,000 pounds, and the effect on *the bridge* is to exert an overturning effort equal to *increasing* the weight on one truss by 28,000 pounds, and relieving weight from the other truss by the same amount. The strains due to this increase are also shown on the diagram.

It is now no longer good practice to put in such a light pin-connected bridge on so short a span. Riveted plate girders are used up to 70 feet, and heavy riveted lattice bridges up to 120' span. This short span weighs, entire, less than one-third as much as a Mogul engine, and only one-sixth as much as the equivalent effect of the same engine suddenly run upon the bridge. The riveted, closed Phoenix columns, which make part of this bridge, are not now in favor, be-

cause there is no access to the interior for painting. About a year ago these columns gave evidence that they are far from water-tight. Near the base of several, considerable rust had run out.

Considerable relief of the bridge would be gained by easing off the curves at each end, extending the tangent as far as possible both ways and making the track entirely level on the floor.

My apology for this lengthy, unsolicited opinion must be that, in the light of the facts, I could hardly do less and have a clear conscience in case anything disastrous should happen from weakness of the bridge.

Very respectfully,

ROBERT FLETCHER.

This report was referred to the railroad company, with the following letter:

STATE OF VERMONT.

BOARD OF RAILROAD COMMISSIONERS,

HARTFORD, April 10, 1890.

Col. E. Curtis Smith, 2nd Vice Pres't., Central Vermont Railroad Company, St. Albans, Vermont.

Dear Sir :—Please find herewith enclosed for your perusal and consideration, a report or statement of Prof. Robert Fletcher of the Thayer School of Civil Engineering, Hanover, N. H., in reference to Lull Brook bridge in Hartland.

The Board understands that the examination upon which this report or statement is based was made by Prof. Fletcher upon his own motion and as a matter of instruction to his class.

The character of the report, the high source from which it comes to the Board, the weakness or insufficiency of the structure set forth and the importance of the subject generally, move the Board to ask you to give this matter your immediate attention, and, as soon as may be, inform the Board as to your views, understanding and purpose in the premises, that it may conclude whether or not the matter should have further attention.

By direction of the Board,

ALFRED E. WATSON, *Clerk.*

To which the following answer was received :—

CENTRAL VERMONT RAILROAD.

SECOND VICE-PRESIDENT'S OFFICE.

ST. ALBANS, Vt., April 22, 1890.

Alfred E. Watson, Esq., Clerk, Hartford, Vt.

My dear Sir :—I beg to acknowledge receipt of your favor of the 10th inst. enclosing copy of report of Prof. Robert Fletcher in regard to the bridge in Hartland. I may say at once that your letter did not reach me until my return home Saturday, and I was obliged to leave Monday and only returned last night.

The contents of Prof. Fletcher's report was a great surprise to me, as this is the first information I have had in regard to the matter. It is needless for me to say that we will in deference to so high authority as Prof. Fletcher take steps to avoid any unnecessary strain of the bridge ; and orders have been given to run only our light engines over the bridge ; to straighten the curves at the approaches and slow down the speed of all trains until we can make further examination and decide what is necessary to be done in respect to the bridge.

Thanking you very much for sending me the report, I beg to remain,

Very truly yours,

E. C. SMITH, *Vice-President.*

REPORT ON BRIDGE OVER EAST CREEK, RUTLAND.

In view of the doubtful appearance of this bridge, the Board concluded to order a special examination of it by Prof. Robert Fletcher, and thereupon gave notice to each of the companies interested, (Central Vermont Railroad and Delaware & Hudson Canal Companies), when such an inspection would be made. In reply the Board received the following letters from the Delaware & Hudson Canal Company, and was verbally informed by the Central Vermont Railroad Company that it would at once proceed to reinforce its part of said bridge by additional rods, and this was being done at the time of the special inspection :—

DELAWARE AND HUDSON CANAL COMPANY.

NORTHERN RAILROAD DEPARTMENT.

OFFICE OF THE SUPERINTENDENT.

ALBANY, N. Y., April 19, 1890.

Alfred E. Watson, Esq., Clerk R. R. Commission State of Vermont.

Dear Sir :—Your favor of 14th inst. is at hand, but owing to the absence of our Chief Engineer I have been unable to send you an earlier reply. I enclose herewith copy of letter from Mr. Swift on the subject of the letter referred to. In view of the facts as stated by Mr. Swift, we do not deem it of any importance that we should be represented at the examination.

Yours truly,

C. D. HAMMOND, *Supt.*

ALBANY, N. Y., April 18, 1890.

Mr. C. D. Hammond, Superintendent.

Dear Sir :—I return herewith the notice to you from Vermont R.R. Commission relating to bridge 88, Saratoga Division, at Rutland. The pressure of work at present makes it difficult for me to go to Rutland to be present at this inquiry, and it seems to me, furthermore, to be unnecessary, as this Company has long considered its half of the bridge unsafe. It has been supported for several years by bents at alternate panels so that it has been a bridge in appearance only, the work being done by the bents which practically form a trestle. Under instructions received from Mr. H. G. Young, Second Vice-President, I am authorized at any time to replace it with iron as soon as the Vermont Central will agree to replace their part of it.

Yours very truly,

A. J. SWIFT, *Chief Engineer.*

REPORT OF PROF. FLETCHER.

THAYER SCHOOL OF CIVIL ENGINEERING.

HANOVER, N. H., April 28th, 1890.

Hon. Samuel E. Pingree, Chairman Board of Railroad Commissioners, State of Vermont :

Dear Sir :—In accordance with a request from the Clerk of your Board, under date of the 11th inst., I made an inspection of the railroad bridge at Rutland, Vt., on Friday the 18th inst. The bridge is a double one, of three trusses, of which the north and middle carry the

track of the Central Vermont Railway (Rutland Division), and the middle and south the track of the Delaware and Hudson Canal Company's line.

Ex-Gov. E. J. Ormsbee of the Railroad Commission was on the ground, with Mr. J. Burdett, Division Superintendent, and Mr. L. E. Roys, Superintendent of Bridges, Rutland Division. No representative of the Delaware and Hudson Canal Company was present.

The Central Vermont Railway Company afforded all necessary assistance in the inspection.

I have now the honor to submit the following *Report* :

General Description.—The bridge is a "through" and covered, with roof raised to give proper headway. The middle and north trusses are of the Howe type, without arches. The south truss is of the same type but of lighter construction, and has been re-inforced by a single thin and rather shallow arch which has become considerably distorted. All the trusses have eleven panels of about 10' 1" each, making the effective truss length about 111 feet. Dimensions of parts are shown on the accompanying diagram.

The Delaware and Hudson Canal Company have inserted trestles, which give abundant support to four panels at the east end and three panels at the west end, thus reducing the clear span to a length of four panels, or about 41 feet. I am informed that this was done about four years ago. The presence of the arch (an undesirable adjunct of a truss) removes the possibility of satisfactory computation for the four panels of the south truss which constitute the "residuum" of a bridge, but there is no doubt, after a rough calculation, that this arrangement is fairly safe for the present traffic of the line, on south truss.

The middle and north trusses were of the same dimensions originally, and none too strong for service as a single bridge. Hence it was an extraordinary arrangement, very far from good engineering practice, to subject one of the trusses to the contingency of having to act for both tracks at the same time.

As to the FLOOR, there are six floor-beams, each 6" x 13," to each panel, and one stringer, 10" x 12," under each rail. The ties are only about 8 feet long, spaced 12' apart in the clear, with outside *low* timber guards notched over them. This floor, while abundantly strong, is defective in arrangement, and far below the standard elsewhere on the Central Vermont system. The ties should be 12 feet long, spaced 4 or 5 inches apart, and have high outside guard timbers.

The timber appears to be in excellent condition, judging from ex-

amination here and there. Only a prolonged foot-by-foot inspection can determine its present condition *throughout*. Both chords are of white pine. The splices could not be all examined, because partly covered by the floor-beams, but so far as could be seen, with one trifling exception, are free from splits, although some of them have opened slightly. The braces are in many cases considerably whittled, and have defective corners as well at the usual "checks." Hence, in the calculation full cross-section cannot be allowed.

The north truss, being unsupported by trestles, must deflect more than the middle one, unless kept very stiff and well cambered.

The bridge Superintendent, Mr. Roys, states that one of the iron rods, taken from the bridge some time ago, was tested and found to be of excellent quality.

Basis of Calculation of Strength.—The bridge can hold but one locomotive and two cars at once. It is claimed that none of the heaviest traffic is sent over this line. I have assumed a moderately heavy Mogul engine, carrying 75,000 pounds on about 20 feet, and tender the same as train-load, about 1220 pounds per foot on one truss, which is heavy traffic. (One of the heaviest Moguls on the Central Vermont lines, carries 96,000 pounds on a little less than 20 feet.) The numerous floor-beams somewhat uniformly distribute the load upon the chords. The dead weight was approximately figured from the actual dimensions. On the annexed sketch are shown the panel-point concentrations deduced from these conditions. Great exactness is not possible in such a case. These assumptions are quite conservative and hardly provide for such emergencies as the temporary use of this division for all through traffic in case of some interruption on main line.

The Middle Truss.—The fifth set of rods from one end, or the fourth from the other, must suddenly act as end rods of a 40 feet truss. Their capacity is as follows: 4th set, effective diameters, 2 of $1\frac{3}{8}$ and 2 of $1\frac{1}{2}$, giving a total effective area of 4.9 square inches; 5th set 2 of $1\frac{1}{2}$ effective diameter and 2.21 sq. area. *Extreme allowable stress*, SUDDENLY applied,—on 4th set ($4.9 \times 9,500 =$) 46,550 pounds, and on 5th set ($2.21 \times 9,500$) 21,000 pounds. Stress on our basis is $23,500 (\frac{1}{2} \times \frac{1}{2}) \times \frac{17,000}{4} = 32,600$ pounds. Hence, the assumed loading on *one track only* overstrains the 5th set, and the *same load conspiring on both tracks must overstrain the 4th set also*. The chords are evidently more than strong enough for these four "service" panels.

The North Truss.—By use of corbels and bolster braces at each end the span is virtually reduced to 9 panel lengths or about 91 feet, as

shown in the sketch. The annexed table gives a synopsis of the calculation for rods and braces. After allowing for defects the braces are found to have a large surplus of strength, the stress per square inch being only $\frac{2}{3}$ to $\frac{3}{4}$ of what would be allowable. The rods are strained rather more than good practice allows, especially the 3d and 5th sets, but are safe if no heavier load is borne than the one assumed. At the time of inspection there were only *two* rods at the 3d and 4th panel points, but Mr. Roys stated that new ones were nearly ready for insertion, and the calculation is made as though they were in place. It is a fair question whether the *two* rods which have long done duty at these points are not already overstrained. The probabilities are that their elastic limit has been passed.

The cross-section of *lower chord* is $4 \times 6 \times 12 = 288$ square inches; but the effective section is only about 186 square inches. [Deduct for keys $\frac{3}{4} \times 12 \times 5 = 45$; for bolt, $\frac{3}{4} \times 18 = 14$; total about 60. Then $3 \times 6 \times 12 = 60 = 156$; to which add 40 square inches as the value of the spliced stringer; or its clamp]. The uniform load causes a strain of $(\frac{17000 \times 90 \times 90}{8 \times 18}) = T \times 186$, whence $T = 514$ pounds per square inch. This will be slightly increased by the extra weight of engine, roughly, about 12 pounds per square inch. But the uniform load causes the chord to *bend* between panel points; it is a case of flexure of a beam fixed at both ends. For this we have $\frac{17000 \times 10 \times 12}{12} = R \frac{186}{12}$ (144) whence $R = 457$ pounds per square inch. Hence the total stress per square inch of extreme fibres is $457 + 12 + 514 = 983$ pounds, which is a safe working stress.

Hence, this truss on a whole is fairly safe for present traffic, with little or no margin in the rods and lower chords. Of course the upper chords have an excess of strength, as they experience no bending. Two engines close upon each other would be an excessive load not considered above.

Conclusions.—In the *middle truss* on both sides of the middle panel, there should be added *two* $1 \frac{1}{2}$ rods with *ends upset*. Also at the next point which has no support by trestle, the equivalent of *one* $1 \frac{1}{2}$ rods with end upset. A total of five rods.

It is within the province of an engineer to suggest that the joint use of a double bridge by two different roads is objectionable. High authorities hold that even for the same company two bridges should be build for two tracks. A designer and builder of wide experience and reputation states that a double track bridge costs 90 per cent of the cost of two single track bridges of same capacity. (Trans. Am. Soc. Civil Engineers, Vol. 15, p. 90, 1886.) This does not include a

small per centage for additional abutment. Two iron or steel bridges of capacity sufficient for heavy traffic are needed at this point.

The recommendation of so much strengthening of a truss reduced from 11 panels to 4 may seem unreasonable; but we must remember that the verticals and diagonals are most strained at the *ends* and least at the middle. In a given panel the strain is greatest when the load reaches from that panel to the farther abutment, and in a truss of some length there is more counteracting effect from the weight of the unloaded part. In reducing from 11 to 4 panels we compel some of these weaker members to serve at the *ends* of the shorter span where the strain accumulates. Of course the load is proportionately less, but it is *so suddenly applied (instantaneously in fact) that its effect is from 50 to 75 per cent greater than on the same members acting near the middle.*

Probably it is needless to remark that Howe truss bridges, which have such a remarkable record of efficiency in the past, are now too commonly overloaded by the modern increase of weight of traffic. The bridge superintendent on this division, who has had a life-long experience, understands well the essential conditions for proper maintenance of such bridges.

Respectfully submitted,

ROBERT FLETCHER.

Prof. of Civil Eng. and Assoc. Am. Soc. Civil Eng'rs.

	1st	2d.	3d.	4th.	5th.	6th.	7th.	8th.	9th.
1. Position of moving load.....	97600	85400	73200	61000	48800	36600	24400	-----	-----
2. Part of same uniformly distributed.....	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$	-----	-----
3. Ratio of same on left abutment.....	13000	13000	13000	13000	13000	13000	13000	-----	-----
4. Total excess.....	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$	-----	-----
5. Ratio of same on left abutment.....	48800	37580	28460	20330	13550	8120	4100	-----	-----
6. " " Uniform moving load.....	10900	9460	8000	6550	5100	3640	2180	-----	-----
7. " " Excess.....	19200	19200	19200	19200	19200	19200	19200	-----	-----
8. " " Fixed load.....	78900	66240	55660	46080	37850	30970	25480	-----	-----
9. Aggregate.....	-----	4800	9600	14400	19200	24000	28800	-----	-----
10. Subtractive shear, intervening fixed load.....	78900	61440	46060	31680	18650	6970	-----	-----	-----
11. Resultant vertical shear.....	1	2	3	4	5	6	-----	-----	-----
12. Deduct for chord weight, etc.	1900	1440	1360	1380	1350	1170	-----	-----	-----
13. Stress on vertical.....	77000	60000	44700	30300	17300	5800	-----	-----	-----
14. Available section of vertical.....	6.82	4.92	3.78	2.314	-----	-----	-----	-----	-----
15. Stress per square inch of verticals).....	11290	12900	11820	13685	-----	-----	-----	-----	-----
16. Sec. (-) (angle between vertical and diagonals),.....	1.14	1.14	1.14	1.14	1.14	-----	-----	-----	-----
17. Maximum stress on diagonal.....	89940	70040	52500	36100	21250	-----	-----	-----	-----
18. Available section of diagonal.....	152	152-8	119-7	119-7	48-4	-----	-----	-----	-----
19. Stress per square inch of diagonal.....	625 lbs.	486	469	322	483	-----	-----	-----	-----

PART III.



SPECIAL REPORTS ON
ACCIDENTS

AND STATEMENT OF ACCIDENT INQUIRIES.

SPECIAL REPORTS ON ACCIDENTS.

FATAL ACCIDENT AT JOHNSON.

JULY 4, 1888.

*In the Matter of the Fatal Accident to Stuart M. Baker, on the
St. Johnsbury and Lake Champlain Railroad, at Johnson,
July 4, 1888.*

It appears from the testimony taken in this case soon after the accident, that young Baker, who was a student in the office of the station agent at Johnson, Vt., but not in the service of the corporation, attempted to board the engine of mixed train No. 2, bound west over this road, as it came into that station on the morning of July 4 last, and, in attempting to do so, was thrown under the cars and run over, sustaining injuries from which he died the same forenoon.

He was intending to go to St. Albans that morning, and to ride a part of the way on the engine, and he started to get on the same while in motion, as it passed the depot platform. He succeeded in catching hold of one of the handles on the side of the engine with his left hand, but failing to do so with his right hand, was swung under the car wheels and run over. Both of his legs were cut off, and he survived the shock only a few hours.

He was conscious after the accident, and attributed no blame to any one besides himself for the same, and the board finds that it was the result of his own carelessness.

By the Board,

ALFRED E. WATSON, *Clerk.*

GRADE CROSSING COLLISION AT SWANTON,

JULY 20, 1888.

*In the Matter of Collision between trains at Swanton, July
20, 1888.*

This accident occurred at the grade crossing of the St. Johnsbury & Lake Champlain Railroad over the Central Vermont Railroad, near Swanton station. There was no loss of life or injury to person, but the fact that any accident should occur seemed to require an investigation, and especially in view of the fact that the legislature has attempted by enactment to make such an accident impossible. The Board, accordingly, appointed a hearing at Swanton, upon the 20th day of August, 1888, and gave notice thereof to both of said corporations, and at said time and place the same was attended by some of the principal officers of each of said companies and their respective counsel. Proofs were taken, and the facts, as developed by the testimony, are as follows :

A freight train of thirty-five cars on the Central Vermont track was running wild from St. Albans to Rouse's Point, about ten o'clock in the forenoon of July 20, 1888. This train came to a stop, and the engineer sounded the locomotive whistle within 1000 feet of the crossing, as required by law,—said stop being made with the engine some 800 feet from the crossing,—and then started up slowly, the engineer intending to stop at the water tank a short distance beyond for water.

About the same time a passenger train on the St. Johnsbury & Lake Champlain road was approaching said crossing from Maquam. This train also stopped about 250 or 300 feet from the crossing, and the engineer sounded the locomotive whistle, and started to make the crossing, which is a very blind one.

There is an elevation of land in the angles between the two roads, through which the St. Johnsbury & Lake Champlain

road passes in a cut, and trains approaching this crossing are concealed from each other until within about 200 feet of the crossing. The engineers did not hear each other's whistles,—the noise of their own trains, or the elevation of land between the tracks, preventing the same,—and when the engineer of the Central Vermont train was so near the crossing that it could not be stopped before reaching the same, the engineer saw the other train approaching and opened the throttle to get his engine across, if possible, before the collision should occur. He succeeded in doing so and the tender and several cars were struck and derailed.

When the engine of the St. Johnsbury & Lake Champlain train had got out of the cut and to a point where the engineer could have seen the other train, its speed was such that it might have been stopped before reaching the crossing, but the attention of the engineer was directed in the opposite direction and he did not discover the train upon the other road soon enough to stop, although he reversed his engine and applied the air-brakes. As it was his duty to look out for trains approaching from either direction, and as he could not look in opposite directions at the same time, he should have run at a speed which would have enabled him to have discovered a train approaching from either direction in season to stop.

The train upon the Central Vermont track being nearer to the crossing was rightfully proceeding on its way, and the Board finds that the accident resulted from the failure of the engineer upon the St. Johnsbury and Lake Champlain locomotive to observe seasonably the other train.

This being a particularly dangerous and blind crossing, an extra amount of care and caution should be observed in approaching the same, and, if trains would make their full stop which the law requires shall be made within 1000 feet, at a point much within that limit, there would be a better

opportunity for the engineers to discover each other's presence and thereby avoid an accident.

By the Board,

ALFRED E. WATSON, *Clerk.*

FATAL ACCIDENT AT BURLINGTON,

JULY 23, 1858.

In the Matter of the Accident at Burlington, resulting in the death of Capt. E. H. O'Neill.

E. H. O'NEILL of Colchester, Vt., was captain of a lake boat on Lake Champlain, and on the morning of July 23 he desired a car to be set on a siding by the wharf, where his boat lay in the harbor at Burlington, to be loaded with brick from his boat. He applied to W. H. Greene, the freight agent of the Central Vermont Railroad Company at Burlington, for the car, and the same was promised him upon the first shift of cars. He pointed out to Mr. Greene where his boat lay at the wharf and where the car should be set, and went away. This was on the westerly or lake siding. He soon after met Frank O'Brian, the conductor of the Central Vermont switching train in the yard, who being at liberty so to do, proposed to Capt. O'Neill that he would run down and haul his car into place for him to load. Thereupon, O'Neill rode out from the rear of the freight house on a car with Conductor O'Brian to get the car. Arriving at the first switch, north of the freight house, O'Brian got off the car on the lake side to change the switch, but did not see O'Neill get off—he being on the opposite side of the car—and did not see him afterwards until he saw him lying on the east side of the new Rutland track, dead. This was across the next track from the car he was on when last seen by O'Brian.

Soon after O'Brian left the train to change the switch, O'Neill was seen holding on to the handles of the engine of

the same switching train by Brakeman Mayo, who also saw him get off the train and pass around it to the new Rutland track upon which a Burlington and Lamoille train was being switched, and beneath the engine of which his lifeless body was found badly crushed and his limbs mangled.

It is impossible to determine the manner in which this accident happened, as no person saw it and no one knew of Capt. O'Neill getting upon this train.

His body was discovered by Robert Butler, the forward brakeman on the Burlington and Lamoille mixed train, which was backing up on the new Rutland track, under the rear of the engine and partially under the rear wheels, which had to be eased up to get the body out.

The Board finds that this train was moving slowly, and came to a full stop in a car's length after notice of the accident; that the death of Capt. O'Neill was the result of some carelessness or misadventure on his own part, and that neither railroad company was at fault for the same.

By the Board,

ALFRED E. WATSON, *Clerk.*

FATAL ACCIDENT NEAR EAST FAIRFIELD,

AUGUST 5, 1888.

In the Matter of the Fatal Accident to Richard R. Dodge on the St. Johnsbury and Lake Champlain Railroad, near East Fairfield, August 5, 1888.

RICHARD R. DODGE of Cambridge, who was a brakeman on the stock train from Swanton to St. Johnsbury, on the night of August 5, was run over and killed near East Fairfield. The testimony shows that Dodge was the forward brakeman of the stock train, and that soon after leaving Fairfield station he left the saloon car to go ahead so as to get ready to do some shift-

ing at East Fairfield, the next station, which was the last that was seen of him alive. Upon arriving at East Fairfield he was missed, and search being made, he was found dead upon the track some distance west of the station, his body being badly mangled. At the point where his body was found the train which was on time, was running at the rate of about twelve miles an hour, on an up grade. It was very foggy on the night of the accident and it was the second trip which Dodge had made on this train. The train was being operated in a proper manner, and an inspection of the cars showed that the brakes on all the same were in good order.

The Board is unable to obtain any evidence showing the exact cause of the accident, and can only draw the conclusion that it was the result of some carelessness or misadventure on the part of the deceased.

By the Board,

ALFRED E. WATSON, *Clerk.*

FATAL ACCIDENT AT HARTFORD,

AUGUST 6, 1888.

In the Matter of the Fatal Accident to Alexander Grant, on the Central Vermont Railroad, at Hartford, August 6, 1888.

On the 6th of August, 1888, at 2:40 P. M., the New York express on the Central Vermont Railroad, going south, ran against a man at a point a few rods below the Roberts highway crossing in Hartford, killing him instantly.

The Board was in session at White River Junction, that evening, and the case was investigated, the railroad company waiving notice.

These facts appeared in the case: Alexander Grant, the man killed, was a Scotchman, 36 years old, having two children in the old country. He was a sculptor and contractor in

a small way in the business of working out and finishing granite monuments and statuary at Barre, Vt., and boarded and did business in partnership with a Mr. Dingle, under the firm name of Dingle & Grant. His partner who roomed with him, left for his work as usual in the morning. Grant, being unwell, remained behind and later bought a ticket for Boston *via* the Fitchburg Railroad, and took the mail train at Barre station and arrived at White River Junction at 11:30 A. M.

It did not appear that he went beyond that point, but that at about 12 o'clock M. he was seen walking along the Central Vermont Railroad track, westerly, towards Hartford village, and still later was seen to pass the station at Hartford, still going west, and at 2:40 P. M. he was again seen walking along the road-bed a few rods easterly of the Roberts crossing just as the New York express was coming down over the same. His lifeless remains were discovered a few moments afterwards by the people living close by. He had received fatal injuries upon the head and was thrown back through the weeds and down the embankment some 50 feet, where found.

Engineer Fox saw him walking on the track as his train approached him, but did not know of his being struck. His hat was found upon the engine, upon reaching the Junction, which the engineer testified was the first indication he had that any one might have been hit by his machine; he learned by telegram, after arriving at Windsor, of the fact of the man having been killed.

It appears most probable that Grant was outside and near the northerly rail of the track, and, if so, he would be out of sight of the engineer for some three rods or more before being reached—the smoke stack and the body of the engine obstructing the view from the engineer's place. The train did not stop.

The Board finds from the testimony, that Alexander Grant

came to his death either through his own carelessness in standing so near the track while the train was passing as to be drawn against the engine or cars by the current of wind, set in by the motion of the train, or, what seems the more probable, that his death was the result of his own design of self-destruction. The unaccountable manner of his leaving home as he did, without notice to his partner, and his leaving the train and turning back from White River Junction on foot, with his Boston ticket in his pocket, taken with the testimony of Mr. Dingle, that for the last few days his manner and appearance had been changed and that he had become more "nervous, blue and morbid than before," led the Board to the above conclusion as the most reasonable solution of the question of the cause of the accident.

The remains were cared for promptly by the town authorities of Hartford, and were delivered over to his late partner, Alfred Dingle, who arrived here the same evening.

By the Board,

ALFRED E. WATSON, *Clerk.*

FATAL ACCIDENT AT WALDEN,

AUGUST 9, 1888.

*In the Matter of the Fatal Accident to Judson J. Rashaw, at
Walden, August 9, 1888.*

This accident occurred on a siding at Walden Summit, leading to a gravel pit, that was being operated by Caldwell & Varnum, contractors, who were employed by the St. Johnsbury and Lake Champlain Railroad Company, doing earth-work—filling a trestle near by. The accident occurred on land without the limits of the railroad company and on land owned by the contractors. Rashaw was employed by Caldwell & Varnum as a day laborer.

It appears from the evidence that there were seven empty and three loaded cars standing on this siding waiting to be pulled out and taken to some other point on the main line. Rashaw worked only one hour that morning and stopped, complaining that he was not feeling well. He rode that morning from Danville to Walden on the engine of the way freight, and, on arriving there, he met the contractors' train which was on the siding and helped load some pipe from a building near by. The trainmen went with the engine to the depot, a short distance, to receive their orders, which took them half an hour. Meanwhile Rashaw sat down by the side of the track so as to be in the shade of the car. He fell asleep with part of his body across the track. The engine came back and made connection with the cars without waking Rashaw, and as the train pulled out the two last cars passed over him.

One leg was cut nearly off at the hip, and this with other injuries caused his death in about three hours. He told the fireman that he had no one to blame but himself, and the Board so finds.

By the Board,

ALFRED E. WATSON, *Clerk.*

FATAL ACCIDENT AT HYDE PARK,

AUGUST 11, 1888.

In the Matter of the Fatal Accident to Daniel L. Durkee on the St. Johnsbury and Lake Champlain Railroad, at Hyde Park, August 11, 1888.

DANIEL L. DURKEE of Morristown, Vt., was a brakeman in the employ of the St. Johnsbury and Lake Champlain Railroad Company. About 4:30 o'clock on the morning of August 11, 1888, mixed train No. 3 was being made up at Hyde Park yard to go east to St. Johnsbury.

In order fully to make up the train some passenger cars had to be shifted from the siding so as to get at some freight cars which were behind them. Accordingly, both passenger and freight cars were shifted on to the main line, and then the passenger cars were set back on the siding. Durkee attempted to uncouple the engine from the passenger car, but could not, so ordered the engineer "to slack back hard" so that the pin would come out.

The engine was a freight engine and had only a draw bar casting with no buffer on the tender, while the passenger car had the ordinary buffer and Miller coupler. In driving back so as to loosen the pin, the draw-bars passed by each other and the tender and car came together, catching Durkee between them and injuring him so that he died the next day. There was nothing unusual in the manner of uncoupling, and Durkee told his brother after the accident that no one was to blame and that the engineer did just as he had told him to do.

By the Board,

ALFRED E. WATSON, *Clerk*.

FATAL ACCIDENT AT CHESTER,

AUGUST 30, 1888.

*In the Matter of the Fatal Accident to Joseph Martin of
Chester, August 30, 1888.*

JOSEPH MARTIN, the deceased, resided in Chester, Vt., and was employed on the Rutland Division of the Central Vermont Railroad as track walker, and was accustomed to use a velocipede or three-wheeled car having a seat midway between the rails with a lantern suspended underneath the same. A tin reflector of the lantern prevented the light of the same from being seen from the rear. On the night of August 30 he was going over the road, riding upon this velocipede, when he was

struck by a locomotive going in the same direction, thrown from the track and instantly killed.

It appeared that he did not hear the approach of the locomotive on account of the noise made by his velocipede, and the reflector around his lantern prevented the engineer from seeing him until the light from the locomotive reached him. The engineer and a brakeman riding on the fireman's seat both saw Martin as soon as he could have been seen and every effort was made to stop by the immediate application of the air brakes and reversing the engine, but the distance was too short.

The track at the place of the accident is such that the locomotive headlight can be seen for a long distance, and the accident can be attributed only to Mr. Martin's failure to keep a proper lookout for his own protection. Since this accident orders have been issued by the company requiring track walkers to carry a red light unobscured, so that their presence on the track may be known to engineers of approaching trains and the danger to track walkers, arising from their own carelessness, may be lessened or avoided.

By the Board,

ALFRED E. WATSON, *Clerk*.

FATAL ACCIDENT AT ST. JOHNSBURY.

SEPT. 6, 1888.

*In the Matter of the Fatal Accident to Mrs. R. K. Richards
at St. Johnsbury, September 6, 1888.*

Investigation in this case was made at St. Johnsbury, October 5, 1888, and the railroad company and the representatives of the deceased were represented by counsel. The facts found by the Board are as follows: A passenger train on the St. Johnsbury & Lake Champlain Railroad from Lunen-

burg had arrived at St. Johnsbury station at 9:08 o'clock on the morning of September 6, 1888, and had discharged its passengers, among whom was Mrs. R. K. Richards of Kirby, Vt., an elderly lady, accompanied by her daughter of middle age. This train came into the station upon the track of said railroad company, which is the second track from the main platform of the depot, and the passengers alighted upon a platform about 100 feet long, $7\frac{1}{2}$ feet wide, and 8 inches high, which had been constructed for the convenience of the public between this track and the track of the Passumpsic Railroad, which was next to the main platform, and the passengers from this train would be obliged to cross said Passumpsic track to reach the depot or the village of St. Johnsbury.

After the passengers had all alighted and before they all had time to cross over to the main platform, a mixed train of 13 freight and one passenger car on the St. Johnsbury & Lake Champlain Railroad from Hyde Park, due before the arrival of the Lunenburg train, but late that morning for some reason, pulled into the station on the Passumpsic track, at a speed not exceeding four miles an hour, and drew past the station to allow the passenger car at the rear of the train to stop opposite the platform.

Mrs. Richards was unaccustomed to travelling and appeared confused and bewildered on alighting from the train, and started to cross the Passumpsic track in front of the approaching train, but was stopped by a gentleman standing near her. She then turned and, after the engine and several of the freight cars had got past, walked in the direction that the train was moving, gradually approaching said train, and, being dizzy, fell against the train, was knocked down, and, in attempting to get up, her feet and legs got over the rail and were run over by the wheels of several cars and injured so that amputation was necessary. She died from the effects of her injuries in the evening of the same day.

The Board finds that the accident was due, as Mrs. Richards

herself stated to several persons, to her becoming dizzy and falling as before stated.

By the Board,

ALFRED E. WATSON, *Clerk.*

FATAL ACCIDENT AT PROCTOR,

SEPT. 7, 1888.

In the Matter of the Fatal Accident to John Erickson at Proctor, Sept. 7, 1888.

JOHN ERICKSON was a laborer in the employ of the contractors engaged in the construction of the Clarendon and Pittsford Railroad at Proctor. He was proceeding to his work upon the morning of the accident, seated upon the forward end of a hand car. In attempting to alight from the same before it had quite stopped, he was hit about the head and shoulders by the handle of the lever with which the same was worked, and received such injuries that paralysis resulted, from which he died the following evening. The car would have come to a full stop within a few feet, when he could have alighted without danger, and the cause of the accident was his own conduct in carelessly putting his body within reach of the descending lever.

By the Board,

ALFRED E. WATSON, *Clerk.*

FATAL ACCIDENT AT BURLINGTON,

SEPT. 29, 1888.

In the Matter of the Accident, Sept. 29, 1888, resulting in the death of William Gower.

WILLIAM GOWER was a teamster in the employ of Elias Lyman & Co., of Burlington, and had been in their service for

between four and five years. September 29 he was on his delivery wagon returning from town, down Maple street to the coal sheds of the firm on the lake ; and as he was crossing the main track of the Rutland and Burlington Railroad, at the highway crossing between the Burlington & Lamoille depot and Van Sicklen and Spaulding's, he first noticed the shifting engine coming down the track, pushing a freight car ahead of it. He had just passed the siding, and, as he discovered the car approaching, he first attempted to cross the track before it reached him ; then (apparently fearing that he would be hit) reined his horse to the left as if to turn away from its approach. It was an instant too late. The car struck his wagon behind, and immediately wagon, horse and driver were all driven together in wreck. The wagon was totally destroyed and Mr. Gower's left leg was broken, and he received, also, fatal internal injury, so that he died within two hours after. The accident occurred at 11:30 o'clock A. M.

On the shifting train were Engineer Deming, Brakeman McKinnon and Shifter Saltus. Within a few rods of the place of the accident, and in plain view of it, were Elias Lyman and W. F. Hendee of the firm of Elias Lyman & Co., looking on as it occurred. The testimony of these witnesses has been taken, and from it and after inspection of the premises by Commissioner Pingree, the Board finds that Mr. Gower was driving his team down the street and over these tracks at too great a speed, considering the dangerous nature and situation of this crossing, and without heeding the warning ; and, finding himself confronted by the shifting train, became confused and lost his judgment as to the right thing to do to keep clear of the approaching car. He should have stopped short instead of attempting to drive across, and, having attempted to cross, he should have kept his mind and done so instead of turning to the left and heading down the track.

The Board also finds from the testimony of all the witnesses, that Engineer Deming rang the bell of his engine

all the way from the switch above this crossing until the collision took place. Also, it finds, that the train was moving but six or seven miles an hour at the place of the accident, and that all possible effort was made to stop the car after danger appeared ; and that the train came to a full stop within a car's length beyond the crossing. Messrs. Lyman and Hendee both testify that there was no fault or want of proper care and prudence on the part of the employes of the company, and that they see no just claim on the corporation for the loss of their property.

The Board finds that the accident was the result of careless management of the team on the part of the unfortunate man.

By the Board,

ALFRED E. WATSON, *Clerk.*

FATAL ACCIDENT AT ST. ALBANS,

OCT. 15, 1888.

In the Matter of the Fatal Accident to Charles H. Meyers, on the Central Vermont Railroad, at St. Albans, October 15, 1888.

CHARLES H. MEYERS of Forest, N. Y., a brakeman on No. 8 freight train, bound west from St. Albans, October 15 last, was fatally injured in the west yard at St. Albans. The car next but one to the caboose upon his train was a rack car loaded with empty barrels. The whistle sounded for brakes, and as he was passing towards the front of and over this car, hurrying to set the brakes, and was stepping from the last of the barrels on top of this car to the car next ahead of it, his foot slipped on the heavy frost with which the barrel was covered, and he pitched forward, fell between this car and the car next forward, and was badly mangled by the three rear cars of the train passing over him. Both arms were broken, his head was badly cut, and his whole right side was badly crushed. He

was taken to the St. Albans House and lived about two hours. Surgeons Page and Jenne of St. Albans attended him. It is obvious to the Board from the testimony in this case, that Mr. Meyers' fall was caused by the slipping of his foot upon the frost covered barrel at the opening between the cars, as he was carelessly jumping from it over the space to the next car.

The testimony of all the witnesses tends to show that the management of the train was proper, and that no one but the unfortunate victim of the accident was at fault for the same.

It is one more of the long list of fatalities that come of an habitual thoughtlessness of their personal safety on the part of train hands in their zeal to serve their employers faithfully.

By the Board,

ALFRED E. WATSON, *Clerk.*

FATAL ACCIDENT AT NORTH CONCORD,

OCT. 15, 1888.

In the Matter of the Fatal Accident to Eugene C. Cowen, on the St. Johnsbury and Lake Champlain Railroad, at North Concord, Oct. 15, 1888.

EUGENE C. COWEN of Whitefield, N. H., was a brakeman on No. 5 freight train running from St. Johnsbury to Fabians, N. H., and in the employ of the White Mountains Division of the Boston and Maine Railroad, which is operated in connection with St. Johnsbury and Lake Champlain Railroad.

He arrived at North Concord at 5:50 P. M., October 15 last, just after dark, and in shifting cars stepped between them to couple them. In so doing he caught his foot in a track frog and before he could extricate himself was run over, sustaining injuries from which he died in a few hours. He gave the usual signal with his lantern to his engineer to back up, so that he could make the connection, and no blame can be

attributed to the trainmen for the accident. The Board would call the attention of railroad managers to the appliances in use which would make this class of accidents much less or quite impossible, and every possible regulation should be made and means provided for the safety of employes.

By the Board,

ALFRED E. WATSON, *Clerk.*

FATAL ACCIDENT NEAR WATERBURY,

Oct. 30, 1888.

In the Matter of the Accident resulting in the Death of Conductor John Eddy.

JOHN EDDY of St. Albans was conductor of a wild freight running west past Waterbury, at about 4 o'clock P. M., Oct. 30, 1888. His train was long, loaded in part with granite blocks from the Barre quarries, and included some empty coal and box cars.

At a point about a mile above or east of Waterbury station the grade is slightly descending. As Eddy's train was passing this point, which is near Stephen Grover's house, he was seen by Mr. N. B. Lamonda, who was plowing within a few rods of him, as he was in the act of climbing down from a high box car to a platform car in front. As he came near the base of the ladder on the box car he turned and undertook to step forward and down to the floor of the platform car before him, but made too short a reach, and, instead of landing on the car floor, fell between the cars and was instantly killed. Mr. Lamonda ran to him instantly and found him lifeless, and crushed as to his left arm, thigh, leg and head. Mail train, No. 66, bound west, was soon due, and it was flagged by Mr. Grover and the remains were carried to Waterbury, where they were taken in charge by the undertaker,

enclosed and sent on the evening express to St. Albans, where his wife and children lived.

It was not known to the trainmen that the conductor was off the train, and so far as can be ascertained Mr. Lamonda was the only person who saw him when the fatal accident occurred. No blame attaches to the railroad company for this accident. It is a consequence of that familiarity with train service which among the most experienced sometimes begets carelessness, and invites dangers which those of less experience would avoid.

By the Board,

ALFRED E. WATSON, *Clerk.*

FATAL ACCIDENT AT BRATTLEBORO,

Nov. 5, 1888.

*In the Matter of the Fatal Accident to Mrs. William Ahern,
at Brattleboro, Nov. 5, 1888.*

MRS. WILLIAM AHERN of Brattleboro, was caught between two freight cars at Brattleboro, in the railroad yard, a few rods below the freight depot, on November 5th instant, and her head was crushed between the drawbars, producing instant death. This casualty happened in this way:

Mrs. Ahern lived in a house close by the railroad yard at its south end, and had been in the habit for several years of going over the tracks in the vicinity, and gleaning the coal and sticks of wood which had fallen from the locomotives or coal cars for her supply of fuel in her house. She was some 63 years of age and her long familiarity in treading about between and through the trains and cars standing or moving on the several tracks and sidings here, to fill her baskets with the bits of coal and wood, had made her carelessly familiar with the situation.

She had been many times ordered away from the premises by trainmen and others on duty there, for her own safety, but would soon return, and was tolerated at intervals as a chronic and irrepressible trespasser. She was borne with by some who did not know the facts, on account of her supposed poverty. She leaves an estate of several thousand dollars. In attempting to cross a track between some cars standing a foot or two apart, while a train below was being backed up to couple on to them, her head was caught in passing in a stooping posture, and she was killed as above stated. As she fell her pail of coal fell outside the track and the accident was discovered. The train was barely moving up to couple, and stopped there so that she was not run over.

By the Board,

ALFRED E. WATSON, *Clerk.*

FATAL ACCIDENT AT MONTPELIER,

Nov. 20, 1888.

*In the Matter of the Accident at Montpelier, Nov. 20, 1888,
resulting Fatally to Joseph Slattery.*

This accident occurred at the depot of the Montpelier and Wells River Railroad at Montpelier, upon the track of the Central Vermont Railroad Company, under the following circumstances.

Mr. Slattery was a day laborer about 72 years old, and was returning from his work at Barre on train No. 59, in the evening of the date named. Just before the train, which was running slowly, reached the platform of said depot, Mr. James M. Boutwell discovered this man sitting upon the lower step of the platform at the forward end of the passenger car, with his legs hanging down, and immediately warned him of the danger of his position. At the same time Mr. Boutwell pulled the bell cord, causing the engineer to

stop the train after running only about 40 feet, but not in season to avert the accident, Mr. Slattery being caught between the car and the depot platform and rolled under the car. One of his lower limbs was crushed, but he insisted upon not having it amputated until a week later, when he died.

The Board finds that the accident was the result of the gross carelessness of the deceased man, who was unwarrantably in the position stated.

By the Board,

ALFRED E. WATSON, *Clerk.*

FATAL ACCIDENT AT POWNAL,

Nov. 22, 1888.

In the Matter of the Fatal Accident to John Jepson, on the Fitchburg Railroad, near Pownal Station, Nov. 22, 1888.

This accident was duly reported to the Board, then followed an inquiry by one member of the Board, resulting in concluding that the case called for a formal examination and hearing, and such hearing was ordered for Jan. 10, 1889, at Pownal station, at 9 o'clock A. M., and notice thereof was given to the Fitchburg Railroad Company and to the State's Attorney of Bennington county; and at the time and place named the Commissioners were attended by representatives of said railroad company and by said State's Attorney; and such witnesses were present as inquiry and prior information disclosed.

The accident occurred at a highway grade crossing, about one-half mile west of Pownal station, on the 22d day of November, 1888, at about 7 o'clock and 20 minutes in the morning, resulting fatally to John Jepson, a lad of 14 years of age, by being struck at said crossing by a west bound through freight train. From the evidence taken at the hearing, on

examination of the place where the accident occurred and a careful consideration of the matter, it appeared that the boy, John Jepson, at and prior to the accident, lived with and was a member of the family of one Daniel T. Bates, who lives near the crossing in question; and at time of the accident was engaged in driving nine cows over this crossing from south to north; that he was ahead of all or a portion of the cows until six of the nine had passed over the track, when it would seem that he discovered the approaching train, and ran back over the track in an effort to head off the other three cows, and passed safely over to the south side of the track before the train reached the crossing; and at this point of time, one of the three cows made a push to join the six that had passed over the track, and, in an effort to prevent this, the boy was struck by the engine and killed. The cow was also struck and killed.

The train was running about 15 miles an hour when it arrived at the place of the accident. It was light and clear at the time of the accident, and the approaching train was in plain view at this crossing, and on either side of it, at any point along the highway for 10 rods or more, for a distance of from 80 to 100 rods.

There was conflicting evidence as to whether the required signal was given at the proper distance (80 rods) to the east of the crossing, but it was undisputed that such signal was given at a point from 20 to 40 rods from the crossing. This undisputed warning was in time to have averted the accident, had it been heeded.

From all the evidence, the Board is not satisfied that the accident was directly or remotely caused by any carelessness or neglect on the part of the railroad company or any of its servants, but does conclude and find that it was caused by the excitement of this unfortunate boy in his over-zealous effort to save the cows.

By the Board,

ALFRED E. WATSON, *Clerk.*

FATAL ACCIDENT AT RUTLAND,

Nov. 27, 1888.

*In the Matter of the Fatal Accident to Solomon Latrimouille
in the Railroad Yard at Rutland, November 27, 1888.*

A preliminary inquiry into the cause of this accident was made by Commissioner Ormsbee, December 8, 1888, and upon the facts found, an investigation and hearing, with notice to the railroad company and State's Attorney, was ordered and had at Rutland, January 17, 1889. The railroad company appeared by Division Superintendent Burdett, and State's Attorney Dana appeared pursuant to the provision of Acts No. 20 and No. 25 of the Laws of 1888.

The testimony taken in the case shows that Mr. Latrimouille was a car inspector and repairer in the employ of the Bennington & Rutland Railway Company. In the afternoon of November 27th last he discovered that the bunter of a car which was to be turned over to the Central Vermont Railroad Company in transit to destination, needed repairs, and the car was set out on the side track of said last named company, near the depot, to allow the same to be made. One John Sullivan was sent to assist him in his duties and was subject to his direction. There were other cars on the side track, apart and north of the one to be repaired, and at first Sullivan acted as watchman to warn Latrimouille of any danger while at work at the opposite or south end of the car. Latrimouille was sitting down while making the necessary repairs, and had been at work there a few minutes when he directed Sullivan to come and assist him, which he did. While they were both engaged in the work a train backed down from the north and shunted the car standing on the side track a short distance north against the one being repaired, knocking Sullivan down but outside the track, and running over Latrimouille, cutting off both legs, from which injuries he died soon after.

It seems to the Board to be a matter of unwise policy for

any railroad company to allow its workmen to make repairs that require them to go under or between cars which are on a track where there may be any shifting, without stationing a man as watchman whose sole duty it shall be to warn the repairer of any approaching danger.

Mr. Latrimouille acted very imprudently in calling Sullivan from his post as watchman to assist him, and the Board finds that he came to his death by reason of his own carelessness in so doing.

By the Board,

ALFRED E. WATSON, *Clerk.*

ACCIDENT AT RUTLAND,

DEC. 8, 1888.

In the Matter of the Accident at Rutland, Dec. 8, 1888, resulting in injury to Mrs. Margaret S. Leary, on the Rutland Division of the Central Vermont Railroad.

Preliminary examination was made in this case by Commissioner Ormsbee, Dec. 20, 1888, and an investigation was had by the full Board, at Rutland, Jan. 17, 1889. The railroad company was represented at the investigation by Division Superintendent Burdett, and the State by State's Attorney Edward Dana.

The testimony in this case shows that Mrs. Margaret S. Leary of Shrewsbury, was passing over the River Street crossing in Rutland village, in the early evening, and was struck by a platform car, which was being pushed over the crossing with another like car, by the locomotive. She was knocked down by the blow and her left arm was run over and cut off by the wheels. The immediate cause of this accident was that Mrs. Leary was so intently watching the bright head-light of the engine, in the twilight, as she was approaching and passing on to the crossing, that she did not note that

there were cars being shoved before it, until stepping upon the track, she was hit by the corner of the nearest car and knocked down and injured as stated. She was so completely dazed by the light, while looking directly at the reflector, that her eyes were blinded from noticing anything between her and the engine. Her testimony was, "I was watching the engine,—the light of the engine—and did not see the cars at all. I did not think the engine was moving."

It also appeared at the investigation, that there are three tracks where the highway crosses at this point, and this engine had passed down from the railroad yard, coupled on to these open cars, and, as it started back, the bell was rung, but after going north to the switch, some 12 rods north of the crossing, it was switched on to the easterly track and moved down over the crossing without any warning by the bell.

The Board finds that if the bell had been kept ringing while these cars were being pushed down before the engine, this unfortunate woman might have been awakened from her trance, and the accident averted, although it was claimed that when within five or six feet of the track the whistle was blown; but it was too late to rouse her from her trance to a sense of her danger, as she also testifies she did not hear it.

This crossing is being abolished, and an excellent over-grade, iron highway bridge is being placed over the tracks.

The Board further finds, that at the time of the accident this crossing was closed to general travel by teams, by sufficient obstacles for that purpose placed across the travelled path, and notices were conspicuously posted "Street closed," but foot passengers continued to pass to the right and left of this obstruction with seemingly the same facility and freedom as before.

By the Board,

ALFRED E. WATSON, *Clerk.*

FATAL ACCIDENT AT MIDDLEBURY,

DEC. 27, 1888.

In the Matter of the Fatal Accident to John White of Leicester on the Rutland Division of the Central Vermont Railroad, at Middlebury, Dec. 27, 1888.

Notice of an investigation of the cause of this accident was given the railroad company, and the same was had at Middlebury, January 18, 1889, and the hearing was held open to take further testimony, and was closed May 20. Division Superintendent Burdett appeared for the railroad company, and said hearings were attended and conducted by Charles M. Wilds, Esq., State's Attorney of Addison County.

The subject of this accident, John White, was a brakeman on freight train No. 22, of which Rufus E. Foy was conductor, Edson E. Deming, engineer, Wm. Thompson, fireman, James E. Quinlan, Joseph M. Arcane and John White, brakemen. It was a north bound train, and arrived at Middlebury, where the accident occurred, at or about 9 A.M., and it was on the siding at the north end of the yard, having been backed down on the siding; when there was occasion to shift an empty freight car from the north end of the yard to the siding at the south end, and the engine and trainmen of this train, whose duty it was, made this shift by backing this empty car over the main track to the south end of the yard and beyond, to the south of the switch at that end of the yard, leading to the siding where the car was to be placed; and then starting north over the switch, the engine remaining on the main track and the car, by change of switch, while both the engine and car were in motion, being thrown on to the siding. Brakeman Quinlan rode on this car from the north end of the yard and remained upon it until after the accident, and was standing on the car and near the end next to the engine when the accident occurred.

The engineer and fireman were on the engine, and Brake-

man White rode on the engine from the north end of the yard, that he might be conveniently near his work when the proper time came for him to pull the pin and separate the engine from the car, and subsequently went to his place of duty over the tender of the engine. He pulled the pin at the proper place, and gave the signal for the engine to pass over the switch. At this moment the engine and car parted by the increased speed of the engine, and White slipped or fell and was run over and instantly killed by the car. The car by its momentum passed on to the siding as was designed, and was stopped by Brakeman Quinlan.

From the point south, where the engine and car started from to make this shift, to and on to the siding where the car was placed, it is up grade, which required that the engine and car should obtain considerable speed in order successfully to make the shift in this way, and the Board finds that this speed was from ten to fifteen miles an hour at the time of the accident.

Rule 14 of the "Rules and Regulations of C. V. R. R. Train Department," "governing the movement of trains," is as follows :

"No. 14. Flying switches *must not be made*. Cars may be allowed to run in upon spur or other sidings *after* the train has been stopped, and arrangements made with the switchman, so that it can be done with *safety*, in which case the car may be given headway."

The immediate responsibility of the shifting of this car in the way above described rests upon Conductor Foy, but it appeared upon the examination and hearing that this "way" of shifting at this place had the approval of the superintendent of the division, Mr. Jesse Burdett, who was a witness before the Board, and insisted that it was not in violation of said rule to shift in this way, but was by the terms of the rule allowable.

There does not seem to be occasion for the Board to decide

the question as to whether said rule was or was not violated, for it is of the opinion that, in consideration of the steepness of the grade at this point, and the degree of speed required to make the shift, this manner or mode of shifting at that place was improper and careless, and that said accident was caused thereby.

The hearing in this case was exhaustive of the evidence bearing upon the matters in question, but was not closed for several months for the reason that the testimony of an important witness could not be obtained earlier.

By the Board,

ALFRED E. WATSON, *Clerk.*

REAR COLLISION AT PASSUMPSIC,

JAN. 19, 1889.

In the Matter of the Rear Collision on the Passumpsic Division of the Boston and Maine Railroad, at Passumpsic, Jan. 19, 1889.

This cause was investigated on notice, at White River Junction, Jan. 24, 1889, by the full Board. There were also present, for the State, Alexander Dunnett, State's Attorney, and for the corporation, Harley E. Folsom, Division Superintendent.

Way freight No. 7 was doing work at the lower end of the yard, on gravel pit siding, at Passumpsic station, Jan. 19, 1889, at about 2 o'clock P. M., and for this purpose, most of the train (which was bound north) was left standing on the main track, while the shifting work at the siding was being done. While so standing, through freight No. 17, also bound north, ran into the rear of No. 7, smashing the saloon car and seriously injuring Dr. J. R. Nelson of St. Johnsbury, and slightly injuring Dr. T. R. Stiles of the same town, passengers therein. This train customarily carries passengers.

It appeared that the schedule time of these two trains, at this station, allowed them eight minutes apart. Also, that No. 7 was required to take or leave cars upon the side track here and elsewhere when such service was required in the business of the road. It further appeared that No. 7 was on time, and properly stopped to do such service at this time and that the conductor, apprehending that he might be detained till the arrival of No. 17, as soon as his train stopped, sent back his brakeman, Frank Carter, to flag No. 17—telling him, as he looked at his watch, that “he had just eight minutes in which to go back and flag No. 17.” Carter went back with his flag and was seen by Conductor Wright, who sent him, and by Brakeman Timlan of No. 7 as he passed the bridge some 75 or 80 rods from the saloon car, still going down the track towards his proper place, and with four minutes’ time yet to spare.

The proof was conclusive that he was seen by the conductor and others on No. 17, at a distance of 106 rods from his own train, standing some 16 or 20 feet from the passing train (No. 17), with flag in hand, and hollowing and motioning them to stop the train.

Engineer Flanders of this approaching train and his fireman, A. L. Howe, and forward brakeman John F. Smith, claim that they did not see Flagman Carter at all; that, if they had seen him, on coming in sight of the point where he appears to have been, their train could have been stopped in season.

The main fault which caused this accident lay between Engineer Flanders of train No. 17 and Flagman Carter of No. 7. One of these men was clearly negligent of his duty. Either Carter was so far distant from the road-bed as not to be discovered by the engineer by reasonable outlook and care, and so was not seen, or the engineer was not mindful of his duty to keep his outlook constant for a signal, especially as he was approaching a station yard.

Mr. Flanders' testimony tended to show that, from the time he left the straight line of track far below the point where Carter was seen by those at the rear of his train, his outlook on the road was constant until he saw the rear of the train ahead of him, as he passed the bridge above, and that no flagman was in sight. In this his fireman and the forward brakeman substantially concurred, and it appeared that they were all three together in the cab at this time.

On the other hand, Carter testified that he went down the track all the way from his train, arriving in the vicinity where seen from the rear of the arriving train, as stated; that as the train approached, he waved his flag from the track till compelled to step aside to avoid being struck by the engine; that, noticing that the engineer did not see him, but was looking in another direction apparently engaged in conversation with those with him, he threw his flag at the cab and hollowed to him; that his flag bounded back from the cab, and that he caught it and ran out from the train a short distance and shook it and hollowed so that he might get the attention of men on the train and have them brake it up.

The Board finds that in this effort he was seen by three men of train No. 17 from the saloon car before brakes were called for by the engineer. These men saw the danger that the red flag indicated, and went to the brakes instantly, setting up four of them before the collision, thus, probably, saving fatal accident to all in the saloon car ahead.

Carter was also seen hastening back, as stated, till near the proper place, by his conductor and trainmen. His intelligent and reasonable statement of what he did there to attract the attention of Engineer Flanders, and, failing in that, to warn the men farther down the train of the danger ahead—much of which was corroborated by the testimony of disinterested witnesses—and all which was the course any man of sense would take under like conditions, convinces the Board and the Board finds that the flagman did his duty faithfully and zealously in this emergency; and that Engineer Flanders was

negligent of a due watchfulness for the signal as his train was approaching the station yard, which should have been constantly looked for to protect the way freight but eight minutes ahead of him and entitled and always liable to stop on the trunk line for shifting service.

There was also considerable evidence before the Board tending to show that the engine of train No. 17 was badly worn and in poor condition for service, that the sand lever was frozen, that the rims of the wheels were worn thin and smooth, and that the machine was unserviceable for such an emergency as this.

The testimony tended to show that five brakes were hard set, and the engine reversed for nearly 70 rods, upon an up grade of some 15 feet to the mile, and yet the train of but 18 or 19 cars was reduced only from 12 to 8 miles in speed before the crash came.

This testimony as to grade, speed and distance, however, was somewhat vague, being based upon estimates of witnesses and not upon measurement, yet it points to the presumption that the machinery of this train was not up to the standard of good railroad service, and the Board recommends to the company to cause inspection of the condition of these car brakes and engine, and correct the same, if found to exist as it appeared at the hearing.

Also, the Board finds, that it is not a reasonably safe schedule for the running of a through freight, with a way freight for all needed stops at stations and passengers in the rear car, ahead, with but eight minutes' time between these trains. The distance apart seems to afford too small a margin to insure safety to the lives of passengers in the rear car of the forward train against rear collisions so incident to the accelerated speed of the rear train and the often unavowed delays of the train ahead.

The Board recommends, that this constant exposure and element of danger be remedied by the company.

By the Board,

ALFRED E. WATSON, *Clerk.*

MISPLACED SWITCH ACCIDENT AT WHITE RIVER JUNCTION,

MARCH 8, 1889.

In the Matter of the Accident on the Passumpsic Division of the Boston and Maine Railroad, at White River Junction, March 8, 1889, resulting in the death of Lewis Harris.

This cause was inquired into by Commissioner Pingree, March 9, instant, and an investigation by the Board was deemed advisable, and duly had, on notice to the corporation, at White River Junction, March 22, A. D. 1889. Present, Commissioners Pingree and Fletcher, and Clerk Watson, and State's Attorney William B. C. Stickney. The corporation was represented by Harley E. Folsom, Division Superintendent, and Hon. Jere Dickerman. O. B. Boyce, Esq., appeared in behalf of the representatives of Mr. Harris.

The investigation developed the following facts: The mixed train from Newport, consisting of freight cars, a baggage car and one passenger coach, due at White River Junction at 10:40 P. M., arrived at 11:05 P. M., hauled some of its freight cars down and set them off on the Central Vermont Railroad line below the depot, and returning took two of those remaining over the "Y" to the Northern Railroad, as usual, while its baggage and passenger cars would make a flying switch and go down to the depot on the main line. Richard Farrell, in the employ of this company there as a train inspector and switchman, and in some other duties, was at his post and gave the switch for the Northern road, and,

as the train passed on to the "Y" in that direction, he set it back for the baggage and passenger cars to go down to the depot, which they did. The locomotive soon returned from the Northern to be turned, headed north, for hauling the train in that direction on the Passumpsic line, at 7 o'clock in the morning. Farrell gave the turn table switch and line which is between the "Y" for the Northern road and the Passumpsic main line, turned the engine and let it out on the main line, and it went down below the depot for use in the morning.

While turning the engine as stated he heard No. 10, regular Boston and Maine freight, coming north over the Northern Railroad, and he hastened to set the switch to take it on to the east track in the bridge, and, as soon as it passed into the bridge, he hurried to inspect this train, not thinking first to set back the switch leading on to the turn-table line. He passed up the east side of this train, in his inspection, and down the west side till near the rear, when he heard an extra Boston and Maine freight from the north calling for the switch to the Northern Railroad. He thereupon hurried and gave it the switch called for, still unmindful of the fact that he had left the turn-table switch open for the table, and motioned the extra forward. This train, which had stopped just north of the bridge, pulled forward upon this motion, and having to haul around a curve of some eight to twelve degrees upon the "Y," also the grade being considerably up, and a flying switch being required to let the saloon car at the rear of the train down the main line to the depot, steam was on going through the bridge.

The turn-table switch is about eight rods from the end of the bridge and at a point where the track has curved considerably to the left after leaving the bridge, and cannot be seen from the engineer's place until nearly out of the same. The engineer discovered, however, before coming upon it, that it was wrong. He reversed the power of his machine and sounded the alarm for brakes at the same instant, and opened

the sand box, and every possible effort was made by him and the head brakeman to stop the train. There were twelve cars and but about eight rods to the end of the switch. The train was nearly at a stand when at the end of this line. Engineer Webb believed it would be stopped till he passed the framework of the turn-table and the engine began to tip forward. He then told the fireman to look out for himself and jumped. He was barely in time, but Harris was caught in the cab by the tender which bounced upon the engine, smashed in the cab and crushed him against the boiler, probably causing instant death. The train remained on the track, and the injury to it, save to the engine and tender, was slight.

There is no chance for controversy or doubt as to the immediate cause of this accident, or for its responsibility. Mr. Farrell was the man at fault. He should not have gone a step towards switching this incoming Northern train or to the inspection of it until he had first set back the turn-table switch and left it all right. True, he did not expect an extra to come down then, but he should not have left that switch open a moment longer for that reason. Letting it remain unfixed for the moment, the unlooked for call of the extra possessed his mind with a new duty, and the first and all important one was not recalled until too late.

To Farrell's credit be it said, however, that he did not seek to avoid the full responsibility of his fatal forgetfulness, but with a full sense of the sad results of his mistake, his exemplary truthfulness, under the constraints of the most trying conditions, is deemed remarkable and creditable.

In the varied service which yard men are sometimes required to perform, there should be omitted nothing to quicken them to a constant thoughtfulness of those duties which concern the safety of their fellow workmen, as well as of the travelling public.

As an incident of this omission of a plain duty, had there been signal lights upon the standard of this turn-table switch

instead of the dingy red and white targets which the Board found there, it occurs to the Board that it would have been less likely that the switchman could have passed them in the darkness without their light having awakened his thoughtfulness into a sense of the condition of this switch. No precaution should be unheeded in railroad service to keep the switchman's senses active in all the details of his duty, and, if the comparatively inexpensive outlay of providing lanterns on these switches, in so direct connection with the main line as this "Y," for this night switching, will tend to diminish this "misplaced switch" class of accidents, there can be no excuse for their tardy introduction. Such accidents as this emphasize their need here, if they have any value over the old target method of signaling, and that they are a safer device is attested by their general adoption on the roads having large traffic and trains running at short intervals, as they did at this point on the night in question.

By the Board,

ALFRED E. WATSON, *Clerk.*

FATAL ACCIDENT AT NEWPORT,

JULY 31, 1889.

*In the Matter of the Fatal Accident to S. W. Dow, on the
Passumpsic Division of the Boston and Maine Railroad,
at Newport, July 31, 1889.*

A preliminary inquiry into the cause of this accident was made by Commissioner Fletcher, and, upon his report, it was deemed advisable to have a formal investigation by the Board; and, accordingly, the same was ordered and had at Newport, November 5th last. Pursuant to notice, State's Attorney F. E. Alfred appeared on behalf of the State, and H. E. Folsom, Division Superintendent, and Hon. J. E. Dickerman, counsel, on behalf of the railroad corporation.

The testimony taken in the case shows that, on the 31st day of July last, S. W. Dow and two other switchmen in the employ of the Boston and Maine Railroad, were engaged in switching cars in the railroad yard at Newport, and at the time of the accident were making up a train. While doing so they proceeded to set out three cars on a certain track, and, in accordance with the usual custom, a flying switch was undertaken.

It appears that three men are employed by the railroad company to do this work, one to turn the switch, one to pull the pin, thus disconnecting the cars and engine, and one to ride on and brake the cars. The regular switching engine, which was in use on this occasion, has no cow-catcher, but has a foot board on the front end where the man to pull the pin can stand, and also a rail to hang hold of. It appears that Mr. Dow was the one who pulled the pin in this instance, and, after he had done so, the engine started away from the cars. At about the same time Mr. Dow went to go up the ladder of the car next to the engine, but he slipped or missed his hold, fell under the car, and was run over and instantly killed.

The Division Superintendent testified that this method of switching cars had been in vogue at Newport since his connection with the railroad, and that he considered it safer than to set out cars by means of a rope or stake, as must be done otherwise, and that this accident was the first one of the kind that had occurred in connection with such manner of switching since the road was built.

While the Board does not approve of flying switches being made in any manner, it appears from this last mentioned fact that the precautionary measures taken to guard against accident in doing the switching here make the same fraught with as little danger as possible. It is evident that this accident was indirectly the result of making a flying switch, but it was directly due to Mr. Dow's own carelessness in leaving his post and attempting to go back upon the car

following, without directions and contrary to custom and good judgment; and, accordingly, the Board finds that the railroad company was not at fault for this accident.

By the Board,

ALFRED E. WATSON, *Clerk.*

HEAD COLLISION AT BROOKSVILLE,

AUG. 30, 1889.

In the Matter of the Head Collision on the Rutland Division of the Central Vermont Railroad, near Brooksville, Aug. 30, 1889.

This accident was investigated the Monday and Tuesday after its occurrence, by Commissioners Pingree and Fletcher, Commissioner Ormsbee being in the West at the time. State's Attorney C. M. Wilds appeared in behalf of the State, and the railroad company was represented by its President, General Manager, Superintendent and Division Superintendent. The scene of the accident was visited by the Board on Monday, the 2nd inst., and testimony was taken that day and the hearing was continued at St. Albans the next day.

The nature of this accident was such as to demand investigation, even though no serious consequences had come of it. It was a head collision in which a passenger train was involved, and that of itself demanded an investigation. It was of all accidents that kind that never takes place without the grossest negligence, or other grievous fault of somebody. In this case, the death of four men and the injuring of several others, coupled with the narrow escape from a far greater fatality, emphasizes this as one of the saddest of the railway accidents in the history of the State.

The collision occurred in this way: A special train had been put on for three days between Burlington and Rutland

to accommodate the public attending the meeting of the Horse Breeders' Association, leaving Burlington in the morning and returning from Rutland in the early evening of August 28, 29 and 30. This special was called "G" and its time card or schedule was published in the usual way for the information of the public and the instruction and guidance of the employes of the road. It left Rutland with nine cars,—one combination and eight passenger coaches, at 6.30 p.m., of Friday, August 30, generally well loaded with passengers, though but five persons were in the forward car at the time of the collision. It was conducted by Hiram A. Blodgett of Northfield, with William Embery, engineer, and George Robeson, fireman, both of St. Albans.

An extra train of twenty-one cars freighted with hogs, conducted by Geo. W. Button with William H. Chillson, engineer, and Henry Perron, fireman, was running "wild" from St. Albans, to Bellows Falls, over the Rutland Division. This train passed New Haven at 7:53 p.m., without stopping.

Excursion train "G" left Middlebury, bound north, at 7:52 p. m., five minutes after its schedule time of arrival there. The distance from Middlebury to New Haven, the next regular station north, is eight miles.

These trains met about three and a half miles south of New Haven, wrecking the engines, tenders, combination cars and eight freight cars, and instantly killing the conductor and engineer of the passenger train, fatally injuring the fireman of the hog train, killing Mr. W. W. Allen of Ferrisburg, a passenger in the combination car, and injuring Charles and Arthur Hunt of New Haven, also passengers in the same car, and conductor Button and engineer Chillson.

A large number of hogs were killed and maimed—the destruction of rolling stock and freight amounting to some \$15,000.

The special train "G" was rightfully running on its schedule time between Middlebury and New Haven, having this

right over all advertised trains. The hog train was proceeding under orders to run "wild" from Essex Junction to Middlebury. The receipt of Conductor Button and Engineer Chillson for their "wild" order to run from Essex Junction to Middlebury reads as follows :

"We understand we are to run wild to Middlebury, meet number ten (10) train at Burlington, run to Burlington ahead of number sixty-one (61) train.

(Signed)

G. W. BUTTON, *Conductor.*

W. H. CHILLSON, *Engineer."*

This train ran to Burlington ahead of No. 61 and met No. 10 there and proceeded thence towards Middlebury under its "wild" order, where it would await further orders.

Circular No. 37, establishing special passenger train "G" and schedule of its running time between Rutland and Burlington, was issued Aug. 23, 1889, and this train which was to run on Wednesday, Thursday and Friday, August 28, 29 and 30, had "all the rights of regular passenger trains."

The schedule of this train was furnished the conductors and engineers both of the special "G" and the hog train. By that schedule train "G" should pass Middlebury at 7:47 P. M., and New Haven at 8:08 P. M., where it was to meet No. 11.

The "wild" train on arriving at New Haven at 7:53 P. M., as stated, should have stopped and taken the siding there for train "G" to pass it. It could go no further without trespassing upon the schedule time of train "G." Its order to run "wild" to Middlebury meant to proceed to that point, keeping off the schedule time of all advertised or noted trains.

Train "G" had the exclusive right of the road. Within one minute of the time this train left Middlebury for the North, the hog train passed New Haven without stopping, bound south. There was no way now to communicate with either train.

The St. Albans office was notified of the passing of each train from its last station, respectively, followed in a few

minutes by notice from New Haven that all communication with Middlebury was cut off. The collision had also broken down the telegraph poles and severed the wires.

There was no fault on the part of any one connected with the special train "G." The accident was the result of the grossest and most inexcusable carelessness and forgetfulness on the part of Conductor Button and Engineer Chillson, for each had a copy of the printed schedule of train "G." The rules governing the movement of a "wild" train were perfectly understood by each, and yet with a heedlessness for which the Board has looked for and does not find any excuse, both forgot their duty and ran past New Haven on the time and in the face of this approaching passenger train, with the fatal results above described. Neither of them testified before the Board. Conductor Button came in at the investigation by request of the Board and submitted himself for examination, but after explanation by the Chairman of the liability of a prosecution being instituted and of his personal privilege to decline to testify, he declined upon the advice of counsel. Engineer Chillson was not called, being too ill to testify by reason of injuries sustained in the accident.

The Board has sought extenuating circumstances which might be improved to relieve the blameworthiness of these men. The extent and continuousness of their service for several days previous to taking this train from St. Albans on the afternoon of the day of the accident has been inquired into.

The forgetfulness, carelessness and even recklessness resulting from physical and consequently mental fatigue,—the result of overwork and want of adequate sleep,—often furnish the key to accidents as serious as this, and the Board realizes that however desirous employes may be to do unreasonable hours of work for the extra pay it brings them, they should be denied by the railroad company the opportunity to do excessive labor, out of a careful regard for the public safety, as well as for their own best good in the end.

But in this case no such condition of over-work appears which can be regarded as in any degree extenuating the gravity of this joint heedlessness on the part of both of the men at fault for this accident.

By the Board,

ALFRED E. WATSON, *Clerk.*

FATAL ACCIDENT AT WEST CONCORD,

OCT. 19, 1889.

In the Matter of the Fatal Accident to Charles C. Blood, on the St. Johnsbury and Lake Champlain Railroad, near West Concord, Oct. 19, 1889.

A preliminary inquiry as to the cause of this accident was made by Commissioner Fletcher. Upon his report it was deemed advisable to have a formal investigation by the Board, and, accordingly, the same was ordered and had at St. Johnsbury, on the 8th of January, 1890. Pursuant to notice, State's Attorney Franklin D. Hale appeared on behalf of the State, and H. E. Folsom, Superintendent, and Harry Blodgett, Esq., counsel, on behalf of the railroad corporation. The hearing was also attended by Wendell P. Stafford, Esq., attorney in the interests of the estate of the deceased. From the testimony submitted it appeared that the accident in question occurred as follows:

The deceased was a brakeman on a freight train which left Lunenburg at about 6:40 P. M., October 19th last, for St. Johnsbury. At the former place two loaded flat cars of dimension lumber were taken into the train, after which the train consisted of engine and 21 cars,—1 passenger, 17 box freight, and 3 flat cars. It proceeded to North Concord without accident, where nine cars were set out, and the balance of the train, including said two cars of lumber, started for St. Johnsbury at 9:20 P. M. When near West Concord station,

and when said Blood was upon the car, the stakes holding the lumber on one of the two cars so loaded broke, and a portion of the lumber was thrown off, carrying said Blood with it, by which he received injuries terminating fatally on Nov. 11, 1889.

From aught that appears, said Blood was, at the time, in the performance of his duty and in no way responsible for the accident, and the Board finds from the evidence, that the train as a whole was being properly run. This particular car-load of lumber was received by the St. Johnsbury and Lake Champlain Railroad Company from the Concord and Montreal Railroad Company at Lunenburg, the same having been shipped from the Browns' Lumber Company, Whitefield, N. H., and being destined for Lawrence, Mass.

The Board finds that the direct cause of this accident was a defective or partially decayed stake, which should not have been used for that purpose, but, when once being fitted in place, its unsoundness was not observable so that it would be discovered by any ordinary inspection, and that such unsoundness was not, in fact, known to the railroad company by which it was being transported at the time of the accident.

And the Board, therefore, finds, that said railroad company or its servants were not at fault in respect to said accident.

By the Board,

ALFRED E. WATSON, *Clerk.*

FATAL ACCIDENT NEAR BRADFORD,

Nov. 17, 1889.

In the Matter of the Fatal Accident to Fredery Staples, on the Passumpsic Division of the Boston and Maine Railroad, about a quarter of a mile north of Bradford station, Nov. 17, 1889.

Inquiry and examination as to the accident in question was

made at Bradford, on Jan. 9, 1890, and the Board was then and there attended by Joseph D. Denison, Esq., State's Attorney, in behalf of the State; H. E. Folsom, Division Superintendent, and John H. Watson, Esq., counsel, in behalf of the railroad corporation; and John B. Peckett, Jr., attorney, in the interest of the relatives of the deceased.

From the examination and evidence submitted, the Board finds:

That Fredery Staples, of Bradford, was run over and instantly killed by a freight train consisting of an engine and 28 cars, at a point about a mile and a quarter north of Bradford railroad station, between 2 and 4 o'clock P. M. of Sunday, Nov. 17, 1889. The train was north-bound, and the trainmen were Charles O. Denison, engineer; Will J. Schofield, fireman; Frank E. Pond, conductor; Thomas Timlin, brakeman;

That no one of said train-men had any knowledge of the accident until several hours after it occurred;

That from the evidence submitted, it is clear that Mr. Staples had gone to the vicinity of the accident hunting earlier in the day, and became intoxicated to insensibility, and that when this train passed he was lying across the track in that condition, and was run over and instantly killed as above stated. The point of the accident was on a sharp curve, and the body of the deceased when approached by the train was not in view of the engineer who, the Board finds, was at his proper station and in the performance of his duty.

And the Board further finds, that the accident was not caused by any want of care or prudence of said railroad company or its servants; *rum was the sole cause.*

The Board is not unmindful of the fact that this accident was in a certain sense the result of a Sunday train, but the views entertained by it having reference to this accident are such as to make that an immaterial fact so far as its duty in the premises is concerned, and its conclusions are arrived at independently of considerations bearing on that subject.

The views of the Board respecting the running of railroad trains on the Sabbath are set forth in its report upon the complaint and petition of citizens of Middlebury, recently made public through the press, and the same is here referred to.

By the Board,

ALFRED E. WATSON, *Clerk.*

REAR COLLISION NEAR ROXBURY,

DEC. 6, 1889.

In the Matter of the Rear Collision on the Central Vermont Railroad, near Roxbury, December 6, 1889.

This accident was duly reported to the Board and preliminary inquiry as to the cause of the same was made by Commissioner Ormsbee. Upon consideration of the testimony taken by him, it appeared that the accident was of such a character that it demanded a formal investigation, although not attended with any fatality. Accordingly, a hearing in the premises was had at the general office of the Board, at which Mr. James M. Foss, General Superintendent, appeared on behalf of the railroad company.

The testimony in the case shows that extra freight train No. 3, consisting of an engine and twenty-four cars, left Northfield bound south, at 6.45 P. M., on the above named date, in charge of F. E. Whitcomb, conductor, and Henry Powers, engineer, having a running time of 45 minutes to Roxbury. This train was to meet No. 6, way freight, and No. 62, express passenger, at Roxbury, and was to be followed from Northfield by No. 59, local passenger train, thirty minutes later, if the latter was on time.

When about a mile north of Roxbury and on a steep up grade (about sixty feet to the mile), and as the rear of the train was on a sharp curve where the view backward for more

than four or five car lengths was shut off by ledges, the engineer found that his locomotive failed to make steam properly and that it could not pull the train up the grade in season to reach Roxbury on time so as to clear the coming passenger train with a sufficient margin of safety, and so stated to the conductor.

The conductor, contrary to custom and good judgment, rode upon the engine from the time that the train left Northfield, and, when he comprehended the situation, started back toward the rear of his train to have the passenger train following flagged. When he had reached the third car back the engineer whistled for brakes, and ordered the forward brakeman to pull the pin, thereby detaching the engine from the train. The engineer thereupon started for Roxbury, to reach which place he had eight minutes before the north bound passenger train was due to leave there.

When the engine was detached from the train the cars began to run backward on the grade so that the conductor and rear brakeman were obliged to set up brakes to stop them. This required some three or four minutes, and as soon as it was accomplished the brakeman started back to flag the passenger train following. He succeeded, however, in getting back only about three car lengths from the rear of his train before the passenger train rounded the curve. The distance from the point where the engineer of this train could see the brakeman waving his danger signal was only about five car lengths from the rear of the freight train, and as the passenger train was then running at a speed of about 28 miles per hour there was not sufficient time to avert the collision, although the engineer stood at his post and did all in his power to do so. The caboose of the freight train was smashed, and some of the cars and the colliding engine were more or less damaged.

John Averill, baggage master, and Roswell Dewey, express messenger of the passenger train, were injured. The escape from a very serious accident and loss of life was extremely narrow.

The Board finds that the conductor of the freight train was primarily at fault for the accident in not remaining at the rear of his train, where he belonged, so that he could have ordered back his rear brakeman to signal the following passenger train seasonably, or at once when the call for brakes was made by the engineer; but it cannot hold the engineer wholly blameless for detaching his engine so summarily and thereby allowing his train to start back on the grade, when he had the margin of time testified to in which to run to Roxbury.

By the Board,

ALFRED E. WATSON, *Clerk.*

REAR COLLISION NEAR CENTER RUTLAND,

JAN. 12, 1890.

In the Matter of the Rear Collision of Stock Trains on the Rutland Division of the Central Vermont Railroad, near Centre Rutland, Jan. 12, 1890.

A special train of 19 cars loaded with hogs, and a caboose car, left St. Albans at about 1 o'clock, Sunday morning, January 12th last, in charge of Thomas Coleman, engineer, J. A. Sturtevant, conductor, with orders to run wild to Rutland—the usual time being seven hours. This train was followed from St. Albans, 15 minutes later, by another special hog train of 11 cars, in charge of C. R. Smith, engineer, and John Prentiss, conductor, with like orders. It was understood by the engineer and conductor of the first train that the other train was so to follow, but they had no special orders in regard to it.

These trains were several times in sight of each other and both stopped at Vergennes to let a north bound train pass, and the rear train helped the forward one up the grade at New Haven, and also stopped at Brandon and Proctor; five

minutes at the latter place to get water. This is within about three miles of the entrance upon a tangent three-quarters of a mile in length which terminates at the curve entering the cut at the other end of or upon which the collision occurred.

The testimony shows that the rear train collided with the forward train when the rear of the latter was about six rods south of the cut. Conductor Prentiss of the rear train says that when the collision occurred he thinks he could see back over the tangent from the car which he was in at the rear of his train. The testimony of the engineer and conductor of the leading train gave it a speed of seven to ten miles per hour, going around this curve; and that of the engineer and conductor of the rear train gave its speed at 15 to 18 miles per hour, not over 18. A section man who was off against the point of the accident and saw the collision testified that the leading train was running as fast as a man could walk when it was struck, and at about the same speed when the engine went past him. The leading train was not seen by any of the trainmen of the one following until within about three car lengths—about 100 feet. The conductor and rear brakeman of the forward train were in the caboose and were injured, but not seriously. The engineer and fireman of the colliding engine jumped from their places in season to save themselves, and their injuries were slight. The caboose car was demolished, others were damaged, the engine and tender were broken up, and some of the hogs were killed. The danger to the men exposed was great and the escape from fatal accident was narrow.

The wild order means that the train running under it is to go through to its destination, keeping out of the way of scheduled trains. Where a train running wild is followed by one under like orders there is no rule to govern them with reference to each other but the constant watchfulness of those in charge to avoid rear collisions. If the leading train is slowed up from

any cause so as to render it possible that it may be overtaken, its conductor should drop off a man to go back and signal the danger to the approaching train.

In this case the conductor of the forward train testified that he could have dropped off a man, but that he did not consider it necessary. "I knew they were going slow. I do drop off a man when I think it necessary, or am in doubt. We came up the grade from Proctor quite slowly. Think the following train was being run according to orders. Cannot account for the accident. Accidents will happen." Conductor Sturtevant claimed that he looked back over the tangent of three-quarters of a mile as he entered this curve, and the rear train was not in sight.

It is evident from the testimony that his train was struck before it had gone its length from the long tangent behind. It is impossible to reconcile the testimony of Coleman and Sturtevant as to the speed of their train, after leaving the tangent, with any possible speed of the approaching train without assuming that the latter came upon the tangent before the rear of the forward train was out of sight.

One of two conclusions is obvious from all the evidence before the Board in this case. Either the forward train rounded that curve at a speed not exceeding three or four miles an hour, or all reasonable watchfulness for the train behind was neglected before the rear of the first train entered the cut. In the first case it would be a positive disregard of well understood rules not to have dropped off and sent back a signal man to warn the coming train of danger. In the other case the neglect of a careful lookout from the rear, just as the curve was entered, would be no less culpable.

The Board finds that when the conductor of the forward train found that its speed was slackening upon the curve and up grade, under the circumstances shown, he ought not only to have put off and sent back his rear brakeman with a danger signal, but should have enjoined on him the utmost speed

until he reached the tangent where he could stop the other train. And in not taking this elementary precaution he did not make reasonable provisions for the safety of his train, and neglected the plain precaution of safety enjoined by Rule No. 53 of the Regulations of the Train Department, with which he was familiar.

By the Board,

ALFRED E. WATSON, *Clerk.*

FATAL ACCIDENT AT FAIR HAVEN,

MARCH 14, 1890.

In the Matter of the Fatal Accident to Mrs. Ellen Humphrey on the Delaware and Hudson Canal Company Railroad, at Fair Haven, March 14, 1890.

The Board having concluded from preliminary inquiry that a public hearing in this case was called for, due notice was given that such public hearing would be had at Fair Haven on April 10, 1890, at 9 o'clock, A. M., and the Board was then and there attended by Edward Dana, Esq., State's Attorney of Rutland County, and Patrick Meldon, Esq., of Rutland, attorney for the family of the deceased; but not by said railroad company, unless it may be said that it was represented by witnesses of the accident produced by it.

All of the witnesses that a careful inquiry had made known, having knowledge as to the matter, were then and there before the Board and were fully examined as to said accident.

As a result of said hearing, examination and consideration, the Board finds that Mrs. Ellen Humphrey of Fair Haven, Vt., aged 72 years, was struck and instantly killed at the so-called Capen highway crossing over said railroad, a short distance west of the station at Fair Haven, on the 14th day of March, 1890, at about 5:50 o'clock, P. M. The train by which Mrs. Humphrey was struck was No. 3, east bound passenger,

due at Fair Haven at 4:30 P. M., and at the time of the accident it was about 1 hour and 17 minutes late, and was then running at a speed of about 30 miles per hour;

That for some reason not apparent, Mrs. Humphrey, the unfortunate victim, undertook to cross the track only a short distance—a few rods—in advance of this rapidly approaching train, and seemingly without taking any observation, or giving any heed whatever of her danger, and this, too, notwithstanding the fact that the whistle and bell of the engine were duly sounded and rung.

The Board further finds that this accident was not the result of the want of any care or prudence on the part of the railroad company or its employes.

By the Board,

ALFRED E. WATSON, *Clerk.*

A copy of the foregoing report was sent to the railroad corporation, accompanied by the following letter :

STATE OF VERMONT.

BOARD OF RAILROAD COMMISSIONERS.

HARTFORD, April 14, 1890.

Mr. C. D. Hammond, Superintendent Northern Railroad Department, Delaware and Hudson Canal Company, Albany, N. Y.

Dear Sir:—Enclosed herewith I send you copy of the report of the Board as to the accident at Fair Haven, March 14, 1890, by which Mrs. Ellen Humphrey was instantly killed.

As a part of the inquiry by the Board in reference to said accident, the Commissioners visited the crossing where said accident occurred and made careful observations as to the surroundings, and in that regard I am directed to say, that in the opinion of the Board the small building called a tool house, standing a few rods west of the crossing and only a few feet south of the track, is such an obstruction to the view of travelers approaching the crossing aforesaid, from the south, that it ought to be removed.

This is a suggestion, rather than a recommendation, which the Board trusts you will act upon, or at least inquire into without delay.

An acknowledgment of the receipt of this letter is desired.

By direction of the Board,

ALFRED E. WATSON, *Clerk.*

In reply to which this answer was received :—

DELAWARE AND HUDSON CANAL COMPANY,
NORTHERN RAILROAD DEPARTMENT.
OFFICE OF THE SUPERINTENDENT.

ALBANY, N. Y., April 17, 1890.

Alfred E. Watson, Esq., Clerk Railroad Commission, State of Vermont.

Dear Sir :—I have your favor of 14th instant, enclosing official notice of the action of the Board in the case of Mrs. Helen Humphrey. While I regret exceedingly the unfortunate occurrence I am pleased to note that the Board was able to satisfy itself that neither our company nor its employes were at fault in the matter.

Referring to the suggestion of the Board regarding the tool house : Orders have been issued that this tool house shall be removed from its present location to one which shall obviate the difficulty mentioned.

Yours truly,

[Dictated.]

C. D. HAMMOND, *Supt.*

FATAL ACCIDENT AT NEWPORT,

APRIL 4, 1890.

In the Matter of the Fatal Accident to James Fuller, in the Railroad Yard at Newport, April 4, 1890.

Preliminary inquiry as to the cause of this accident was made by Commissioner Fletcher and the clerk of the Board, and, upon the testimony taken, it appeared that a public investigation should be had in the premises. Accordingly, a hearing was appointed at Newport, June 10, 1890, upon due notice to parties interested. The State was represented only by the Board, the State's Attorney of the County still being, as for several years past, one of the solicitors of the railway corporation. Prouty & Farrell appeared for the family of the deceased, and Crane & Alfred, solicitors, and Frank P. Brady, Assistant Superintendent, appeared on behalf of the railway company.

Upon investigation it appeared that James Fuller, a car repairer in the employ of the Canadian Pacific Railway Company, was run over in the railroad yard at Newport, while in the performance of his duty, in the afternoon of April 4 last, sustaining injuries from which he died at about midnight of the same day.

Mr. Fuller had been in the employ of said railway company but a little over a month, and had not previously worked upon a railroad. Upon the day stated he was directed by the foreman of car repairs to repair a car which had been set off the main track for that purpose, prior to its being sent forward to its destination, together with another car. The track upon which these cars stood was not one used exclusively for cars needing repairs, but it was the scale track of the yard, and these two cars were set just below the scales.

No one was sent with Fuller to assist him, or to warn him of danger, and no danger signal was displayed upon or at the car while it was undergoing repairs to show that any one was under it, such precautions not having been in vogue here upon this railway, or its connection, the Boston and Maine Railroad.

The foreman aforesaid testified that his instructions to the repairmen under him always were: "to look out sharp for themselves, and that their time was their own in regard to such things."

Freight train No. 21 of the Canadian Pacific Railway Company arrived at Newport at about 4:20 P.M., of which, in the regular line of business, there were two cars to be weighed. The trainmen proceeded to do this work, and the engineer backed a part of his train upon and over the scales, striking the car which Fuller at the time was repairing, not knowing that he was there.

Mr. Fuller was run over, had his left leg crushed and sustained other injuries, from which he died as above stated. He was twenty-nine years old and left a wife and one child.

The Board finds that the primary cause of this accident was the absence of a proper danger signal or a watchman to warn trainmen at work in the vicinity that the car which Mr. Fuller was repairing should not be moved while undergoing repairs, and said railway company is at fault for not having made and enforced a rule to such end.

Since this accident danger signals have been in use as a precaution against a recurrence of it.

The Board reiterates its views expressed in a report heretofore made upon a similar accident—that it is unwise and culpable for a railroad company to allow employes to undertake to make any repairs upon a car standing upon a track where there is liable to be more or less shifting without a watchman or danger signal to guard against accidents ; and otherwise, if extensive repairs are required, there should be a track solely for cars needing such repairs, and under the charge of repairmen.

By the Board,

ALFRED E. WATSON, *Clerk.*

STATEMENT OF ACCIDENT INQUIRIES.

The following is a list of accidents as to which the Board has made inquiry into the causes—generally by taking and filing testimony—but has judged that the public good did not require an investigation and hearing:—

July 17, 1888.—Brakeman Wm. Ober fell from a platform car while switching at North Hartland, on the Central Vermont Railroad, and received a severe scalp wound; not fatal.

Aug. 2, 1888.—W. R. Worthington, of Rutland, a passenger on the Rutland Division of the Central Vermont Railroad, while near Brooksville, standing on the platform of a car, was hit by some missile, supposed to be thrown at him by some person unknown. His injury was serious, but not fatal.

Aug. 7, 1888.—Benjamin Barber, while walking over the highway crossing in Pownal, on the Fitchburg Railroad, was struck by the locomotive of a west-bound freight train, and received bruises and had a collar-bone dislocated; injuries not otherwise serious. There is no gate or flagman at this crossing.

Aug. 11, 1888.—John Ryan, a laborer in the employ of the Boston and Maine Railroad, Passumpsic Division, had his arm broken while at work loading rails on to the cars near Barton; inquiry indicated that carelessness on the part of the injured man was the cause.

Aug. 29, 1888.—Near Georgia station, on the Central Vermont Railroad, Brakeman J. N. Kellogg fell from his train, while in motion, and received injury upon his head, and his left arm was severed from his body.

Aug. 30, 1888.—J. C. Reynolds, freight brakeman on the Passumpsic Division of the Boston and Maine Railroad, had his arm crushed while coupling cars at Fairlee station, so that it had to be amputated. Preliminary examination into the cause satisfied the Board that this accident was the result of carelessness in the use of the dangerous device (the link and pin coupler) against which trainmen deserve protection—though careless in its use.

Sept. 1, 1888.—Charles H. Bolles, a fireman on the Passumpsic Division of the Boston and Maine Railroad, fell from his engine near East Barnet station, while the train was in motion, and one foot was crushed by the tender wheel so that amputation became necessary.

Sept. 21, 1888.—H. C. Gainey, a brakeman on the Rutland Division of the Central Vermont Railroad, who, at the time, was on the engine, stepped off the same at Gassett's, while it was in motion, and slipped, getting his leg under the wheels of the train, and it was cut off.

Sept. 21, 1888.—Near Damon's Station on the St. Johnsbury and Lake Champlain Railroad, James McBeigh of North Concord, Vt., a passenger, fell from an open car on which he chose to ride, although the train was provided with a car for the carrying of its passengers, which he might and should have occupied, and the wheels ran over two fingers of one hand. It appeared that no one saw him get on the open car or fall from it.

Oct. 4, 1888.—Alfred Burrabee, freight brakeman on the Passumpsic Division of the Boston and Maine Railroad, had his foot caught between two rails in the St. Johnsbury yard and was thrown down, fracturing a thigh bone. No known

accident from this cause has occurred in the State since the law for blocking such spaces came into force.

Oct. 19, 1888.—When No. 11 passenger train on the Newport and Richford Railroad (Canadian Pacific System), arrived at Newport, Vt., a Mrs. Aiken, a passenger, was missed from the train by friends. Search was immediately made and she was found lying in a culvert some four miles north of Newport, with a broken right arm and right wrist dislocated. The indications were that she had stepped out to the car platform to view the scenery and had accidentally fallen from the train.

Nov. 7, 1888.—On the Delaware and Hudson Canal Company Railroad, at Center Rutland, Brakeman F. Flannery of train No. 44, while switching and taking a link from the drawbar, head of the car, in motion, had his right arm caught between the dead-woods of the cars and badly crushed.

Dec. 8, 1888.—C. H. Wood, brakeman on the Missisquoi Valley Division of the Central Vermont Railroad, attempted to board his train while moving backward at Enosburgh Falls, by stepping upon the brake-beam with one foot and throwing one leg over the draw-bar, fell, two cars passing over one of his arms, necessitating amputation.

Dec. 12, 1888.—An old gentleman, named Edward Bruyca was driving a team of two horses and a wood wagon over the grade crossing by O'Neill's store at White River Junction, with a young man by the name of Edwin E. Stickney with him, and the team was struck by passenger train No. 57, bound south, and Bruyca was fatally injured and he died a few days after. Stickney was but slightly hurt as he jumped from the wagon in season to save himself on discovering the approach of the train. The horses were killed and the wagon demolished. Inquiry developed that the driving on the crossing was careless in the extreme. It was just past train time. The crossing is 100 rods below the depot and from the

highway near it all view of the approaching train was obscured by the store and dwelling house near it. Mr. Bruyea lived within 60 rods of the crossing, and was in the habit of doing team delivery work in the village and was acquainted with the dangerous character of this crossing and with the running of the trains. He was also warned by a lad standing by, not to drive on there, as the train had just whistled, whereupon he whipped up and seemed to invite the accident. The Board recognizes this as a most dangerous crossing, but owing to the conformation of the ground, railroad, highway, and structures of the neighborhood, it sees no practicable remedy at present.

Dec. 25, 1888.—After leaving Fair Haven, and while going across State Line on the Delaware & Hudson Canal Co. Railroad, train No. A. struck and instantly killed Martin McCalvin, who was lying on the track between the rails. This man had been on a drunken spree the day before, and was down on the track (where he was run over) in a state of drunken unconsciousness. The night was dark and though discovered, and at first thought by the engineer to be “a dump of ashes,” it was impossible to stop the train before he was struck.

Dec. 26, 1888.—On the Delaware & Hudson Canal Co. Railroad, Jere Malampy was discovered sitting upon the end of a tie outside the rail, about 50 rods north of Pawlet station, and 40 feet ahead of train No. 53. An effort was made to stop the train by the engineer, but before it could be stopped the forward end of the baggage car or the steps of same struck Malampy and inflicted a slight scalp wound.

Dec. 30, 1888.—Brakeman H. Brooks on Newport and Richford road, (Canadian Pacific System,) while climbing up side of his car to top of train, at Stevens' Mills, was hit by an awning on the station house, and knocked down upon the top of the car and remained unconscious for a while, but soon

rallied and proved to be but slightly injured. The awning was placed there projecting too near the passing trains, by C. P. Stevens & Co., and not by the railway company. Messrs. Stevens & Co. were at once notified by the railroad company to remove the same and did so.

Dec. 31, 1888.—R. Adams of Northfield, 72 years of age, was crossing the Central Vermont Railroad near the grade crossing about thirty feet north of the station there, and was struck by the pilot of accommodation train No. 58, starting north. The accident was witnessed by F. J. Houston, a merchant of the place, and by Switchman Thomas O'Grady, both of whom testified fully as to the circumstances before Commissioners Ormsbee and Fletcher, and Conductor Lawrence gave testimony in the case to Commissioner Pingree, who examined the premises the day following the accident. There are four tracks at this crossing and the mail train bound south had just entered the depot on the first track, its rear car reaching back over the highway crossing a car's length; and No. 58 was pulling out north on the next track beyond, while a freight was moving on one of the tracks farther over. Mr. Adams passed north of the first train and of the crossing, reaching the second crossing just in time to come in front of No. 58 as it was starting out, and his mind and eyes were fixed on the freight train moving before him on one of the tracks further over; and he was not noticing No. 58 at all, till his foot was caught by its pilot, as stated, just before he stepped off its track. In the struggle to extricate himself his left arm and leg were crushed and mangled, from which injuries he died the next day.

Jan. 16, 1889.—John Rooney, a section foreman, attempted to board a passenger train while in motion at Pownal, on the Fitchburg Railroad. He fell and wheel of a car crushed three of his toes, and his head was also somewhat injured.

Jan. 19, 1889.—Michael Cronin, a track-walker on Central

Vermont Railroad, between Middlesex and Montpelier Junction. At the time of the accident he had been in the service of the railroad company about six months. He left Montpelier Junction between 7 and 8 o'clock P. M. of January 19, to walk over the track to Middlesex. Nothing further was seen or known of him until his body was found the next morning near Middlesex beside the track, badly mutilated. He had been run over during the night by some passing train and instantly killed. The examination disclosed that he was doubtless intoxicated at the time of the accident.

Jan. 21, 1889.—A German laborer—known as No. 30, name unknown,—while loading logs from a skidway to cars at St. Albans, was injured, and some of his ribs were broken. Upon making inquiry, he had disappeared, and his whereabouts was unknown.

March 13, 1889.—The Howe Scale Company, whose shops are but a short distance south of the railroad station at Rutland, and near the track of the railroad, has an arrangement with the Central Vermont Railroad Company whereby the railroad company does its shifting of cars from shop to shop, and to and from its scales, and on March 13, 1889, one of the engines of the railroad company was in the yard of the Howe Scale Company, on its track under the aforesaid arrangement, and while shifting cars of lumber, Patrick Collins, an employe of the Scale Company, was drawn between the cars being shifted and a pile of lumber near the track, and received injuries from which he died on March 18, 1889. The Commissioner making the inquiry made report of the facts and circumstances and his conclusion in the matter to the Board,—his conclusion being :—"It is possible that some want of precaution may be charged upon the Howe Scale Company or its servants, in allowing lumber to be piled so near to its track, or in piling it so near, but I do not assume to make a finding in that regard. I do not find that the accident occurred

from any want of care or prudence on the part of the railroad company, its servants or agents. It is my opinion that the case does not call for an examination or hearing by the Board." The evidence taken upon which said report was based and the report were considered by the Board at its next meeting, and it was by the Board voted that the said report of the Commissioner be adopted.

March, 15, 1889.—Collision on Boston and Maine Railroad, Passumpsic Division, near Passumpsic station. Through freight train, No. 20, south bound, met an extra freight, bound north, at Passumpsic station at 10 A. M. The extra took the side track, but it was too short for it; some four or five cars remained on the main track. The extra sent a flagman back to protect its rear, but he failed to go far enough, and No. 20 was unable to stop in time to prevent running into the cars of the extra remaining on the main line. No one was injured. This siding has since been extended.

March 26, 1889.—Edward Clark, the subject of this report, was in the employ of the Delaware and Hudson Canal Company Railroad as freight brakeman. He left Rutland on the train known as the "Schenectady freight" at 8:20 P. M. The train consisted of 42 cars. On arrival at West Rutland the train went on to the siding to allow another train to pass, and when the train had stopped, it was found that the brakeman, Edward Clark, was missing. This was reported to the conductor of the train, and he at once sent the remaining trainmen back to search for him. They found his lifeless body about one-fourth of a mile back. No other facts bearing upon the cause of the accident were ascertainable.

April 6, 1889.—Charles Munson, a freight brakeman at the date of the accident, on the Delaware and Hudson Canal Company Railroad, in jumping from a train near Castleton station, while it was in motion, for the purpose of turning a switch, fell and injured his left knee.

April 8, 1889.—The engineer of an extra freight train in the yard of the Boston and Maine Railroad, Passumpsic Division, at Newport, had run his engine to the water tank, for water, and when about to return, a section man came up on same track with a push car and requested him to back his engine about ninety feet, so that he could take his car from the track at the usual place, and the engine was backed slowly in compliance with this request. After going only a few feet the engineer saw some one attempt to catch on to the engine, and on looking out, discovered that the engine was passing over the legs of some one. The engine was moving slowly, and was stopped almost immediately. The person injured proved to be Ernest Alexander of Newport, a boy about 11 years old, who had been playing about the yard, and who in attempting to ride on the engine when in motion, as above stated, met with this accident, which proved fatal about five hours later.

April 8, 1889.—Frank Day, yardmaster at Brattleboro, in the employ of the Central Vermont Railroad Company, on the above date, was assisting in making up a train in the yard, and stepped between the cars to pull the pin, and slipping, fell and was run over, and one leg was so badly injured as to necessitate amputation.

April 15, 1889.—The subject of this sketch, Aldace LaForest, was a young man about 19 years old, and a freight brakeman in the employ of the Boston and Maine Railroad, Passumpsic Division. At about 6 o'clock P.M. his train was waiting for a signal, when it might pass over the bridge to West Lebanon, N. H. When the signal was given, the brakemen were together at or near the rear of the train, but Mr. LaForest started forward on the top of the cars to his place of duty. The train at the same time moved towards and into the bridge. The last seen of LaForest on the train, he was sitting on the head of his brake and near the bridge. About this time he was hidden from view by the smoke of the

engine coming out of the bridge. The next seen of him he had fallen between the cars and been run over by several of them and fatally injured. He died the same evening. The bridge was old and covered, and is now being replaced by a less dangerous one.

April 18, 1889.—About midnight of April 17, 1889, two strangers came to the house of the switchman in the yard at Essex Junction, and, among other inquiries, asked if a freight train for Burlington was expected, and remained there until the freight train from St. Albans for Burlington came. About this time (1.30 A.M., April 18) the switchman left the two men to attend to his duties elsewhere, and the train passed on to the track for Burlington; and as it passed these strangers undertook to board it, and in the attempt one of them lost his hold, fell between the cars and was run over, receiving injuries from which he died in a few hours. His name was James Ap-John, and he was from Montreal.

April 25, 1889.—Michael McGrath, employed as a switchman in the yard of the Central Vermont Railroad Company, at St. Albans, while riding on the front end of a shifting engine, without any known or ascertainable reason, fell, and was run over by the engine, and received injuries from which he died in a short time.

May 7, 1889.—Charles Daley was a conductor of a freight train on the Central Vermont Railroad, which left St. Albans soon after midnight. The train had orders to stop at Georgia station, and, as it approached that place, he was on top of the train and going towards the forward end. About this time he was missed by the absence of his lantern, and he was found on the track; and, when found, he had been run over and killed. The cars of the train had separated, and, it is supposed that this fact caused his fall; but this is only conjecture.

May 10, 1889.—At this date, J. E. Marcott, of Burlington, went on to the mail train, while it was waiting at the station at that place, to deliver a package to a passenger, and continued on the train until it reached King street, from 40 to 60 rods south of the station, when he jumped off, was run over by the train and instantly killed. No one on the train, so far as inquiry discloses, knew of his purpose or desire to get off, and none of the trainmen knew of the accident until after it had occurred. The act of jumping was entirely voluntary. No other material facts bearing on this case were ascertainable.

May 16, 1889.—R. A. DeChambeau of St. Johnsbury. This accident occurred in the yard of the Boston and Maine Railroad, Passumpsic Division. Mr. DeChambeau was in the service of said railroad—a brakeman on a freight train—and, at the time of the accident, was engaged in assisting in making up his train; and, while in the act of adjusting couplings, he was run over, from which he received an injury that caused his death on May 21, 1889. The Board made an exhaustive examination as to all the facts and circumstances attending this accident, and came to the conclusion that this was an *accident*, indeed, and one for which the wrongful or neglectful act of no one is responsible. It is one of the many fearful accidents chargeable to the use of the deadly “link and pin” coupler; and which must continue to horrify every one, until railroad companies shall, for economic and humane reasons, abandon it; and until public sentiment and appropriate legislation shall condemn and prohibit the use of that death-dealing device.

May 17, 1889.—Mrs. Ladd was the wife of the agent at Summit station, on the Grand Trunk Railway, and the family, Mr. and Mrs. Ladd and one child of the age of about three years, lived in the depot at the time of the accident, which occurred on the above date at about 1 o'clock P. M. This is a flag station. On this day, upon the approach of the

mid-day east bound express train, running at usual speed, Mr. Ladd, the station agent, was in the office attending to his business, and the train passed without any knowledge on his part that any accident had occurred or anything unusual had transpired. From evidence submitted to the Board, it appears that when the train approached the station, the engineer saw a woman on the platform walking moderately towards the east end of it; and when the engine was within a few yards of where she was she made a spring from the platform as though to jump across the track. The engineer failed to see her after he saw her jump, but fearing he must have struck her, he stopped the train as soon as possible, and backed back to the station and inquired of Mr. Ladd if any one had been hurt, and where his wife was, and was informed that the wife was in the house and all right, and that no one had been injured, and assuming that Mrs. Ladd had cleared the track in safety and returned to the house, the train went on its way to Island Pond, where information was received over the wires from Mr. Ladd that his wife had been hit and killed by the train. It appears that at the time the train passed, and in fact until the mother was found as hereinafter stated, the child was at play on the opposite side of the road-bed from the station. Soon after the train left Mr. Ladd discovered her lifeless body some distance away on the opposite side of the track. The child was in no real danger from the passing train and what moved the mother thus to expose herself must forever remain a matter of conjecture, as the case is free from any suspicion of a suicidal intent.

May 17, 1889.—Frank O. Smith, fireman on engine "Killington", of which one Henry LaPearl was engineer, had run from Rutland and helped freight train No. 5 over the summit, pushing it. At the time of the accident the engine was in the rear of the freight train, and had been disconnected from it, and was on the point of returning to Rutland. Mr. Smith was at this time on the rear end of the tender talking

and playing (or as the engineer testified, "fooling") with the rear brakeman of the freight train; and loosing his balance fell between the tender and the car, and was run over by the tender and instantly killed.

June 24, 1889.—Mrs. Samuel Bowtelle, while passing through the railroad yard at Rutland, at about 3:30 P. M., was struck by a shifting engine and knocked down, but not run over, and as was at first supposed quite seriously injured. Upon inquiry made later it proved, that Mrs. Bowtelle was injured much less than was at first feared.

June 29, 1889.—The subject of this accident was John Paquette, one of eleven laborers employed by the St. Johnsbury and Lake Champlain Railroad Company, at "Pumpkin Hill" trestle, who were returning to St. Johnsbury about 5 o'clock P. M., and while so returning on a so-called push-car, met an engine running wild, and were thrown from the track, and Paquette was instantly killed; (one other man of the party was somewhat injured). At the time of the accident this push-car was going down a steep grade, 80 or 90 feet to the mile, and met the engine on a curve. The engineer was running his engine rightfully, and no blame attaches to him for the accident. From examination made by the Board, it appeared that this push-car was in charge of one Frank King, foreman of the gang, who was on the car, and handled the so-called brake, "a hard wood stick with a piece of leather on it." The car was overcrowded and overloaded, and at the time of the accident was running at a high rate of speed; and was beyond ready control. From the evidence before the Board, it further appears, that this was the usual manner or mode of the return of these men from their work, and that this was known to, and approved by, some of the subordinates of the road. The responsibility of this accident rests immediately upon the section foreman who thus allowed his gang of workmen to be carried with such speed down a grade which might place his car beyond control, upon a line where a wild engine or train

might possibly be met. And the Roadmaster cannot be held blameless, who, under the circumstances, allowed his section-man so to transport his men habitually.

July 10, 1889.—Brandon Washout.—A cloud-burst washed the road-bed from under about four rods of track a mile north of Brandon village, on the Rutland Division of the Central Vermont Railroad, leaving the rails suspended. Train No. 52 came upon them, the engineer not being able to discover their condition in the dawn of the morning. The engine and first five cars were dumped. Eight persons were injured, but none seriously. The cause of the accident was manifest upon inquiry, and no investigation was had.

July 23, 1889.—Helen Trumbull attempted to step off a Delaware and Hudson Canal Co. car near West Rupert station, at the end of the car where there was no assistant, and which extended over a trestle; and, it being dark, she fell through the trestle. Her injuries were very slight.

July 24, 1889.—A little girl, surnamed Leguire, was struck by an east-bound train, on the highway crossing at North Pownal, on the Fitchburg Railroad. She had a leg broken and was otherwise bruised. She had just crossed the track ahead of the train, and was attempting to return, disregarding or being frightened by it.

July 30, 1889.—Mrs. J. Woodworth, of Burlington, was, with her husband, riding over the grade crossing of the Misisquoi Valley Division of the Central Vermont Railroad, near Richford, in their carriage, when the horse became frightened at the cars standing near the crossing, and ran, throwing them from the buggy.

July 30, 1889.—P. McMahon, station agent of the Central Vermont Railroad Company at Montpelier Junction, stepped from a saloon car on to the platform, while the train was in motion, slipped, and was run over and instantly killed. Mr.

McMahon was 55 years of age. The platform was slippery from rains, and the feat he attempted was extremely careless, and cost him his life.

July 30, 1889.—As the track-walker on the Central Vermont Railroad passed over his section at 3.30 A. M., he found the body of Alexander Breaux, of Swanton, dead, about a half mile north of Highgate Springs station, evidently run over by some night train.

It appeared from the testimony of Mr. Burke that there had been a quarrel between the companions, as stated by one Lashoire, and that blows had been given in the vicinity where Breaux's remains were afterwards found. He was found in such condition that there was suspicion that he had been beaten before he was killed by the train. The Board referred copies of all the testimony taken to the State's Attorney of Franklin County for such investigation as might seem advisable.

Aug. 3, 1889.—Mrs. Esther Gilmore, of St. Albans, was struck by train No. 66, bound north, on the Central Division of the Central Vermont Railroad, at Elm street crossing in St. Albans, and fatally injured and died on the same day.

Aug. 10, 1889.—Fred Nichols, a trainman on the Delaware and Hudson Canal Company's road, had his hand crushed between the bumpers while coupling cars at West Rutland.

Aug. 12, 1890.—R. A. Tubbs, railroad carpenter, was fatally hurt while working on top of a freight car of the Central Vermont Railroad at the St. Albans car shops, by losing his balance and falling to the ground.

Aug. 13, 1889.—At Bellows Falls, on the side track of the Vermont Valley Railroad, Thomas Donahue and Thomas Donovan, quarrymen, of Concord, N. H., were sleeping under a freight car, opposite the passenger station, and were run over by the switching of cars. Donahue died of his injuries the

same day, and Donovan escaped with only a severe scalp wound.

Aug. 20, 1889.—Charles Sortwell of Barre, was run over and instantly killed on the Montpelier and Wells River Railroad between Barre and Montpelier, at the highway crossing, near Barre Junction. This man was somewhat deaf and wanting in intellectual capacity, and, while gazing at a passing train on the Montpelier and White River Railroad, he failed to note the approaching engine, on the track where he was standing, by which he was struck and killed.

Aug. 21, 1889.—Truman Kennerson of Barre, was run over by a freight train of the Montpelier and Wells River Railroad, near Barre village, and died about an hour later. He was 75 years of age and in the habit of being carelessly on the track. He lived within a few feet of the track and near where the accident occurred. The train which struck him was on shifting service at the time and no one saw him before his injury.

Aug. 24, 1889.—Perley Preston, brakeman on the Central Vermont Railroad, fell from the train between the cars, near Essex Junction, and was fatally hurt and died a few hours after.

Aug. 28, 1889.—In the yard of the Passumpsic Division of the Boston and Maine Railroad, at Newport, Hector Berneau, 15 years of age, while riding on the foot-board of the tender of the shifter, was thrown or fell off and was killed. The engineer did not know of his being on till he heard him scream from his injuries.

Aug. 28, 1889.—E. M. Abbott, freight brakeman, on the Passumpsic Division of the Boston and Maine Railroad, fell from a car and one truck ran over his leg and foot, breaking one bone in each and bruising him. Inquiry shows his recovery and that amputation was not necessary.

Aug. 29, 1889.—Train No. 62, waiting the arrival of the Delaware and Hudson Canal Company train, which was late, at Centre Rutland, was run into by an extra freight following, which did some damage to the rear car of No. 62 and to the pilot of the freight engine. No one was seriously injured, though a bad kind of an accident.

Aug. 30, 1889.—Mathew Johnson was killed at a point two miles west of West Rutland station, on the Delaware and Hudson Canal Company Railroad, while sitting on one of the rails and not moving off till struck, although all warning possible was given by the engineer.

Aug. 31, 1889.—Near Essex Junction, on the Central Vermont Railroad, Jacob Plummer, attempting to cross the track ahead of the freight train, was struck and killed.

Sept. 6, 1889.—E. B. Brown of Bradford, Vt., was found by trainmen under some cars at Bellows Falls, on the Central Vermont Railroad, with both legs crushed, and he died two days later.

Sept. 6, 1889.—At Swanton Junction, one Victor Lamotte stepped from between the cars on the side track in front of a moving train, and was knocked down and his head was badly cut. He left for parts unknown before he could be interviewed.

Sept. 10, 1889.—Joseph Lapier and Edward Rich, section men on the Central Vermont Railroad, were struck by a St. Johnsbury and Lake Champlain engine coming on to the Central track, at Swanton. The men were aligning the track, and other engines near were letting off steam, and the bell was not heard. Lapier lost a leg, but recovered; Rich was not seriously hurt.

Sept. 11, 1889.—Frank O. Billings jumped from train No. 58, in Sharon, on the Central Vermont Railroad, and was said to be internally injured, but the Board is advised that he recovered.

Sept. 23, 1889.—N. E. Bonny, clerk in the service of the Grand Trunk Railway Company at Island Pond, was run over by shunter No. 118. His right leg was crushed and amputated, and he died the next day.

Sept. 26, 1889.—W. R. Jameson jumped from the train while at speed, at West Danville station, on the St. Johnsbury and Lake Champlain Railroad, and was thrown down and had one leg run over, necessitating amputation. Death ensued some 10 days after. He said he blamed no one but himself.

Oct. 2, 1889.—Theodore M. Sherman of Castleton, was struck and instantly killed while walking on the track near Castleton station, on the Delaware and Hudson Canal Company Railroad. He was deaf, and the whistle was blown and every effort made to avert the accident, but of no avail.

Oct. 17, 1889.—Harlan P. Kellogg, walking on the Central Vermont Railroad track, running parallel with the track of the Delaware and Hudson Canal Company Railroad, stepped over to the latter track to avoid a train approaching on the former, coming on just ahead of the Delaware and Hudson Canal train, was struck by the latter, and had his left foot crushed, an arm fractured and his head cut. This was between West and Center Rutland stations.

Oct. 17, 1889.—E. D. Burns, station agent at West Burke, on the Passumpsic Division of the Boston and Maine Railroad, while aiding the trainmen to stop a car in motion, fell, and the wheels passed over his left arm, which was amputated.

Oct. 21, 1889.—Wm. Daniels, brakeman on the Passumpsic Division of the Boston and Maine Railroad, while running a damaged car out for repairs, near St. Johnsbury, was caught between it and a projecting truss-rod and seriously but not fatally injured.

Oct. 23, 1889.—F. S. Roe, brakeman on the Central Vermont Railroad, accidentally fell between the cars, above West Randolph station, and one arm was crushed by the wheels passing over it.

Nov. 1, 1889.—Charles Adams of Burke, Vt., an aged man lying on the track about two miles north of West Burke station, on the Passumpsic Division of the Boston and Maine Railroad, was struck and was killed by the day express, bound north.

Nov. 2, 1889.—J. W. Hall, while attempting to cross the track of the Rutland Division of the Central Vermont Railroad, at East Wallingford, was run over and killed. He was very deaf and probably did not hear the train.

Nov. 3, 1889.—T. B. Kennedy, while walking near the track, near Pearl street crossing in St. Albans, on the Central Vermont Railroad, slipped and fell, and his left hand was crushed by a passing car wheel.

Nov. 6, 1889.—Carl Erickson, 12 years old, attempting to board a moving train at Proctor, on the Rutland Division, Central Vermont Railroad, had his left leg run over at the ankle.

Nov. 6, 1889.—M. T. Smith, track-walker on the Rutland Division, Central Vermont Railroad, riding on the train between Bellows Falls and Rockingham, stepped down on the car steps (it is thought), and, leaning out, hit his head against the side of the bridge and was injured.

Nov. 9, 1889.—A. L. Frisbie, bridgeman on the Brattleboro and Whitehall Division, Central Vermont Railroad, while walking on the guard-rail to a trestle at Williamsville, missed his footing, fell and was instantly killed.

Nov. 23, 1889.—J. Hogan, brakeman on the Central Vermont Railroad, fell from his train near St. Albans station and was killed.

Dec. 11, 1889.—John Hosmer, while walking on the track, was struck by an engine and killed at St. Johnsbury Center, on the Passumpsic Division, Boston & Maine Railroad. He was somewhat deaf.

Dec. 13, 1889.—John Brown was struck by an express train on the Grand Trunk Railway, west of North Stratford, N. H., in Vermont, and injured so that he died three days later. He was a stranger, walking on the track, looking for work, as he claimed.

Dec. 25, 1889.—Kate Brennan, 70 years old, walking on the track of the Rutland Division of the Central Vermont Railroad at Bellows Falls, was struck and fatally injured by a passing train, and has since died.

Feb. 12, 1890.—Fatal accident to Charles Whittaker on the Central Vermont Railroad near Royalton. Inquiry showed that he fell from his engine, while in motion, on the bridge north of Royalton, on the above named date, from some cause not known or ascertainable, and was instantly killed.

Feb. 22, 1890.—Fatal accident to Wallace Arnold, near North Clarendon, on the Rutland Division of the Central Vermont Railroad. Inquiry showed that Arnold was walking on the railroad track when first seen by the engineer. He was walking in the middle of the track. He stepped to one side and continued to walk on the ends of the ties. The whistle was sounded a number of times, but Arnold, being quite deaf, undoubtedly did not hear the approaching train.

Feb. 25, 1890.—J. P. Mullen of Montreal, P. Q., brakeman on the Central Vermont Railroad, fell from the top of his train in Milton yard, and died from injuries received. Upon inquiry it appears that he was rear brakeman on the special freight train bound south, and while in the yard at Milton and braking up his train, which had nearly come to a stop, he slipped or otherwise fell between the cars and was run over.

No one saw him fall, and when last seen alive he was setting up his brakes.

March 14, 1890.—Henry Farr, about 10 years old, was riding on a hand-car near Chester station, Rutland Division, Central Vermont Railroad, and was caught by the crank and thrown ahead of the car, by which his leg was broken. The section men were engaged in bringing coal in the hand-car from where a car of coal had been wrecked to the station, and this boy was permitted to ride with them. If the section-men had declined to let the boy ride—as strictly they should have done—the accident would have been avoided. Beyond the broken leg no serious results came from the accident.

April 14, 1890.—At Colchester, Patrick Hanrahan, brakeman in the employ of the Central Vermont Railroad Company, fell from the top of his train and his right foot was crushed. It appears from the testimony in this case, that the accident to Mr. Hanrahan was the result of a failure on his part to exercise a proper degree of caution upon the top of his train while shifts were being made.

April 18, 1890.—George Heon, of St. Johnsbury, while walking on the track of the Passumpsic Division of the Boston and Maine Railroad, at the north end of the St. Johnsbury yard, was struck and instantly killed by the engine of the down mail train, at 9 o'clock A. M. Inquiry showed that all danger signals were sounded to warn him of the danger, and several men near by shouted to him to get off the track, but he did not notice them. He had been warned on several occasions to keep off the track, and particularly on the morning that he was killed.

April 21, 1890.—Michael Sammon, while attempting to steal a ride on train No. 46, on the Delaware and Hudson Canal Co. Railroad, near Rutland station, fell to the track and was fatally injured, at 9:15 o'clock P. M. None of the trainmen knew of his being on the train, and he must have boarded it

in the yard or when it was starting out, and before it was under much headway; no one of the trainmen knew of the accident, until informed of it the next day.

April 22, 1890.—Fatal accident to Eli Dugas at Newbury, on the Passumpsic Division of the Boston and Maine Railroad, about one mile south of Newbury station. Testimony taken in this case shows that Dugas had been badly under the influence of liquor for some days past, and upon the day of the accident was suffering from delirium tremens, and he was in that condition when he wandered upon the track and was killed.

April 29, 1890.—Lewis Mayo, fireman on No. 3, an extra freight train, bound south, on the Central Vermont Railroad, fell from his engine about half a mile south of Jonesville, and was severely injured about the head, at 1 p. m. Inquiry was made, and it appears from the testimony taken that Mayo was looking out of the engine, in the gangway, and, in some manner unknown to the Board, fell from his engine. There was no depression in the track, no jerking or sudden coming together of the train, that would have caused him to be thrown off. He had been on the lookout for hot-boxes, as there had been more or less trouble in this direction since leaving Milton, and no doubt, while in this act, he lost his hold and fell.

May 2, 1890.—Head collision at St. Johnsbury. As the day express train north, on the Passumpsic Division of the Boston and Maine Railroad, was coming into the south end of the St. Johnsbury yard, it collided with the mail train going west upon the St. Johnsbury and Lake Champlain Railroad, which was setting off on the siding, having just started to back up out of the way. The engines came together, the speed of the express train being about six or eight miles per hour. The pilots of both engines, and the front end casting of one, were broken. No one was injured. In answer to inquiries as to the cause of this accident, the company replied

that the switchman at the point where the trains collided was at fault, and he was discharged.

May 5, 1890.—Fatal accident to Walter L. Barney, rear brakeman on No. 5, an extra freight train going south, on the Central Vermont Railroad, at Colchester. From such testimony as could be obtained upon preliminary inquiry, it appears that this accident resulted from the breaking apart and coming together again of the freight train upon which Barney was brakeman, whereby he was thrown from the top of the cars to the track, run over and killed.

May 28, 1890.—George Leonard, of Pownal, while walking on the track of the Fitchburg Railroad, about half a mile east of the station in Pownal, was struck by the engine of a freight train, sustaining injuries which were not fatal. He was somewhat intoxicated, and had been taken off the track twice previously.

June 1, 1890.—W. A. Booth of Cold River, N. H., was struck by the engine of train No. 15, on the Bennington & Rutland Railroad at 2.35 o'clock A. M., and killed. Booth was lying on the road-bed near Rutland, between the rails, apparently asleep. Testimony taken shows that he was seen by the engineer on the track just before the engine struck him, but not in time to avoid the accident; also that he started from Rutland about eleven o'clock the night before to walk to Clarendon, and, being intoxicated, it is most likely that he either fell exhausted on the track or lay down to sleep there.

June 16, 1890.—No. 93 train on the Burlington & Lamoille Valley Division of the Central Vermont Railroad, about one mile west of Jeffersonville station, struck a man, name unknown, who was walking on the track. The man was deaf and dumb. From subsequent inquiry, the Board learns that the man is doing well and with a probability of final recovery.

June 21, 1890.—Nehemiah French of Barre, while walking on the track of the Montpelier and White River Division of the Central Vermont Railroad, in Barre yard, was run over and fatally injured by No. 1 freight train, coming from Montpelier in the forenoon of said day, and he died the following day. From the testimony taken, it appears that he was an old man, very deaf, and that the trainmen did all in their power to warn him of the danger by blowing the whistle and ringing the bell and stopping the train, the speed of which when it struck him being only about 4 miles per hour. He had been seen on the track in the yard several times by the yard master, who was his nephew, and warned to keep off.

June 25, 1890.—Head collision on the Passumpsic Division of the Boston and Maine Railroad at Olcott, between through freight trains Nos. 13 and 22. The engines and twelve cars were badly damaged. This accident was caused by an error in train orders upon the part of the night train dispatcher. In answer to an inquiry by Commissioner Fletcher for a statement of the cause of this accident, the following communication was received from the company :—"June 24, train No. 14, through freight, Wilmot, engineer, McNulty, conductor, left Lyndonville at 5.45 o'clock P. M., with running order, of which the last clause read, 'On up train No. 13 of the 25th remain at White River Junction for further orders,' this crew returning upon No. 13, due to leave the Junction at 12.55 A. M. Train No. 22, through freight, of same day, Norris, engineer, Daniels, conductor, left Lyndonville at 8.40 P. M., with running order, of which the last clause read, 'Meet up train, No. 13 of the 25th at White River Junction.' Both of these orders were given by the day dispatcher in the train dispatcher's office here, and one of the copies of each was signed by the conductors and engineers of those trains, and were on the dispatcher's table with other orders when the night dispatcher came in at midnight, and were looked over by him as usual, but, for some unaccountable reason, he gave

No. 13 orders at the Junction to meet *other* trains, but entirely forgot No. 22 (which had been given the order when they left Lyndonville to meet No. 13 of the 25th at the Junction), and No. 13, thus having received the further orders which they were to remain at White River Junction for, had a right to proceed to Norwich, their regular meeting place with No. 22, so that we cannot avoid placing the blame upon McKenny, night train dispatcher. Mr. McKenny had been doing the work for nearly three years, and without an error until this time. McKenny's hours of duty were from 12 midnight to 8 o'clock A. M."

Upon consideration of the same, the Board declined to order a public investigation, inasmuch as the railroad company admits the cause of the accident to rest wholly upon itself, claiming that it occurred through the carelessness and neglect of its employe, the train dispatcher, and resulting in no injury to any person. The Board is advised that the damage to property by this accident was many thousand dollars, which loss the company has to bear; and McKenny was discharged from the services of the company.

PART IV.

COMPLAINTS,
PETITIONS AND DECISIONS,

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COMPLAINT AND PETITION OF THE STANDARD EXPLOSIVES COMPANY, LIMITED.

SUBJECT: TRANSPORTATION OF HIGH EXPLOSIVES.

The following report, issued by the Board, gives the proceedings had in this case:

IN BOARD OF RAILROAD COMMISSIONERS.

MONTPELIER, Nov. 27, 1888.

In the Matter of the Complaint and Petition of the Standard Explosives Company against the Central Vermont Railroad Company.

This cause is based upon a complaint called out by the answer of the Board to the following letter of the plaintiff company, to wit :

NEW YORK, Aug. 24, 1888.

S. E. PINGREE, ESQ., *Chairman, Railroad Commissioners, Hartford, Vt.*

Dear Sir,—Your address has been given to us by Mr. J. W. Hobart, General Manager of the Central Vermont Railroad.

For some time past we have been in communication with the officers of that road, and supplemented our letters by a personal call upon them at St. Albans, having in view the transportation of high explosives (dynamite) over their lines. Mr. Hobart, in his last communication to us, of a recent date, states that the Directors and Officers of his road are indisposed to transport this article unless compelled to do so, and suggests that the only remedy we have is by a personal appeal to the Railroad Commissioners of Vermont.

At your convenience, will you kindly advise us whether it is within the purview of your duties and authority to interfere in the matter,

and if such is the case, indicate to us the proper steps to be taken in the premises.

Very truly yours,

THE STANDARD EXPLOSIVES CO. (Limited.)

S. T. Apollonio, President.

To which the Board made reply, through its clerk, as follows:

HARTFORD, VT., Sept. 1, 1888.

MR. S. T. APOLLONIO, President, "*Standard Explosives Co. (Limited)*," New York City.

Dear Sir,—Referring to your favor of the 24th ultimo, addressed to the Chairman of the Board, I am directed to say in reply, that the Board considers it within the purview of its duties to consider the matter referred to in your letter.

The matter of transportation can be brought before the Board for action by way of a petition, or other way, informally. If not regarded as personal, the Board would be pleased to receive a copy of your reply from the railroad company.

Yours very respectfully,

ALFRED E. WATSON, Clerk.

The copy referred to was sent and is as follows:—

CENTRAL VERMONT RAILROAD.

ST. ALBANS, VT., Aug. 15, 1888.

S. T. APOLLONIO, Esq., *The Standard Explosives Co., 45 Broadway, New York.*

Dear Sir,—In reply to your favor of the 13th inst., I would say that I have just wired you declining to make an arrangement to carry high explosives except as stated in the telegram. I regret on your account that the outcome of this matter is not favorable to you, but our people feel that there has nothing appeared that convinces them that high explosives are not dangerous. If they are carried by our consent and charges made accordingly and anything should happen, we should be censured to such an extent that we should regret having made the arrangement. If you were to give us a guarantee or if you were to appeal to the State Commissioners and have them make an order to carry it the way will be clear for us, as we should

be released from responsibility which would be placed upon the Commissioners.

Yours very truly,

J. W. HOBART, *General Manager.*

(*Pierce.*)

The letter of the plaintiff company in reply and by way of presenting its complaint was received Sept. 13, 1888, and is as follows, to wit:—

HON. SAMUEL E. PINGREE, *Chairman, Board of Railroad Commissioners, Hartford, Vt.*

Dear Sir,—Supplementing the letters which we have addressed to your Board on the subject of the transportation of high explosives over the lines of the Central Vermont Railroad, desire to say, that early in August the writer paid a visit to St. Albans, and there met J. Gregory Smith, Esq., President, and J. W. Hobart, Esq., General Manager, of that system. At that interview the writer presented to those gentlemen certain facts, viz.:

A. That in the State of Vermont, only accessible by rail over the line of the Central Vermont Railroad, or by teams from points on Lake Champlain, there are corporations and persons using large quantities of dynamite, whose trade has been offered to us;

B. That during the winter months we would be completely shut out from the enjoyment of this trade, in the event of the Central Vermont Railroad refusing to receive and transport dynamite;

C. That it is not an uncommon practice of some persons, to ship this class of goods under false representations, even in the baggage cars of passenger trains;

D. That compliance with the existing regulations of the railroad company, during the summer months, imposes upon us a very heavy expense, which, in turn, has to be borne by the consumer;

E. That under the rules and regulations laid down by the following railroad companies of the United States—

Pennsylvania; Baltimore and Ohio; Philadelphia and Reading; Central Railroad of New Jersey; Erie; Chicago, Burlington and Quincy; Chicago, Milwaukee and St. Paul; Atchison, Topeka and Santa Fe; Union Pacific; Northern Pacific; Denver and Rio Grande; and very many others, the dangers of accidents, either from fire or collision, is comparatively slight;

F. That the accidents resulting from the carelessness of railroad employes, in handling this class of goods, during the past 10 or 12

years, have not been numerous, and, when compared with those resulting from other causes, have been few, indeed;

G. That the danger of accident from the transportation of dynamite is very much less than that incurred in transporting black powder, which, we understand, is freely transported by the Central Vermont Railroad;

H. That, under suitable rules and regulations, setting apart certain days in the month, when these goods in their true character can be received and transported, the public safety would be better conserved than under the present restrictions.

The above are most of the salient points which the writer presented to the officers of the Central Vermont Railroad Company, on the occasion of his late visit to St. Albans.

In view, therefore, of the foregoing, we would respectfully ask your Board to take such action in the premises as you can consistently do.

Very respectfully,

THE STANDARD EXPLOSIVES CO., Limited.

S. T. Apollonio, Manager.

The Board thereupon, at its next meeting, communicated further as follows:—

HARTFORD, VT., Oct. 10, 1888.

COL. E. CURTIS SMITH, *2nd Vice-President, Central Vermont Railroad Company, St. Albans, Vermont.*

Dear Sir:—Please find herewith enclosed complaint of "The Standard Explosives Company, Limited," of New York, alleging a refusal on the part of the Central Vermont Railroad Company to transport its goods.

You are respectfully requested to file with this Board such early answer as your corporation may wish to make thereto, in order that it may be decided what further action will be necessary in the premises.

By direction of the Board,

ALFRED E. WATSON, *Clerk.*

And November 13, the following answer was received,—to wit:—

CENTRAL VERMONT RAILROAD.

2ND VICE-PRESIDENT'S OFFICE.

ST. ALBANS, VT., Nov. 13, 1888.

To the Honorable Board of Railroad Commissioners, Montpelier, Vt.

Gentlemen :—Referring to your favors of October 10, and 30, and November 9, relating to the complaint of the Standard Explosives Co. limited, of N. Y., about transportation of high explosives over the lines of the Central Vermont Railroad, I beg to state in reply thereto as follows, viz :—

SEC. 3426 Revised Laws of the State of Vermont provides, "That a railroad corporation may establish for their sole benefit a toll upon all passengers and property carried on their railroad at such rates as are determined by their directors, and may regulate such conveyance and transportation, the weight of loads and other things in relation to the use of the road as the directors determine."

In pursuance of this Statute this Co. put into effect, March 26, 1888, local freight tariff number 15, governed by the Official Classification, and provided on page 95, rule 12, that, "Nitro-glycerine, powder, dynamite and other dangerous articles would not be received for transportation or allowed on the cars of the company for shipment. If shipment is secured by fraud or concealment, shippers will be held responsible for any damage arising therefrom in addition to the penalty the law provides therefor."

The Commission are also respectfully referred to the following, as showing the uniform practice and rules respecting the transportation of high explosives which are in force on all the roads forming the principal connections of this Co. to the Atlantic seaboard, being as they are the principal Trunk lines in New England.

"*Boston & Maine, Lowell System*, joint circular number 241 issued July 2nd, 1888. Attention is called to rule 7, which reads, gunpowder, dynamite and like explosives will not be received, and any person shipping such under another name will be held responsible for all damage that may occur in consequence while the property is in the hands of the corporation. This and other rules in Boston & Lowell tariffs numbers one and two, and Passumpsic Railroad tariff number three are still in force, * * * and powder and other explosives will not be received for transportation under any circumstances * *. Parties have recently been detected in shipping dynamite under the name of "Cement" thus endangering the lives of our

trainmen and others, and the parties doing so have been prosecuted and fined. Employes for their own protection must be on the lookout for such shipments and notify the General Freight Agent if any attempt is made to ship such freight under disguise."

The Fitchburg Railroad in its Freight Classification dated Jan. 1st, 1881, page 6, rule 16, provides that, "Giant powder nitro-glycerine, dualin, fireworks and like combustibles will not be received on any terms, and any person securing shipments of such freight under concealment will be held responsible for it while in the custody of the company."

The Connecticut River Railroad Freight Tariff dated Sept. 1st, 1887 rule 5, page 8, provides, "Gunpowder, nitro glycerine, and like articles will not be transported."

The Boston and Albany Local Freight Tariff number 3, dated Jan. 1st, 1881, rule 10, provides, "Nitro-glycerine, dualin * * * or any other explosives will not be received on any terms."

The New York & New England Freight Tariff dated April 22nd, 1887, page 6, rule 21, provides, "The Co. will not undertake to carry nitro-glycerine, gunpowder, dualin or dynamite. They will not be allowed in the cars or stations, and if found there the agent or shipper will be held responsible."

The Canadian Joint Freight Classification, number 5, dated March 1st, 1888, governing all roads in Canada, provides, "Dynamite, dualin, gun cotton, giant powder, Hercules powder or other explosives not provided for in this classification will not be received or transported."

I beg to state that the reason underlying the rules hereinbefore referred to, issued by this Co. and the other companies mentioned, is, that the transportation of these high explosives is deemed to be, and is, dangerous in the extreme to the safety of freight and trains, as well as to the persons handling or receiving same, and to the property along the line of the road transporting them. I understand further that by the Common Law, the company is not only excused from receiving and carrying such articles, but is liable for all injuries resulting therefrom to others who handle them or receive them. I would respectfully refer you to Rorer on Railroads, Vol. 2, page 1231.

In view of the law as we are advised it is, and in view of the duty transportation Co's. owe their stockholders, their employes and the public, and in pursuance of the established practice prevailing in the conduct of the business of its principal connections, this company declined to receive the goods of the petitioner for transportation.

I might add, the petitioner fails to show what jurisdiction your

Hon. Board have over the question at issue, or what relief can be given that will protect the rights of parties and public.

Very respectfully yours,

E. C. SMITH, *Vice-President.*

P. S.—Please see *Boston & Albany vs. Shanley*, 107 Mass. 576,

Parrott vs. Wells, Fargo & Co.,
15 Wallace 524.

on questions of duty of the company to refuse transportation of high explosives.

"A common carrier carries according to his profession. He carries only what he professes to carry and this he must carry alike for all, but he is under no obligation to take dangerous explosives if he applies the rule to all alike, and, without examination, it is submitted, the commission have no power to compel it."

Thereupon a hearing was appointed for November 15th inst., and notice was duly given to the railroad company and the complainant.

The defendant company appeared by its president, vice-presidents, general manager, superintendent of local freight traffic and attorneys. The complainant did not appear in person, but by brief and correspondence.

The following is a statement of the case and the findings of the Board:—

General rule No. 12 of Conditions of Transportation of the Central Vermont Railroad is as follows:—

"Nitro-glycerine, giant powder, dynamite, dualin, or other dangerous articles will not be received for transportation or allowed in the cars or on the premises of this company. If shipment is secured by concealment or fraud, shippers or owners will be held responsible for any damage arising therefrom in addition to such penalties as the law imposes therefor."

The question confronts the Board whether this rule claimed to be made and adhered to by the company in the interests of safety to its property, the lives of its employes and the public is reasonably necessary and fair to shippers of the class of goods enumerated, and particularly to the commodity of dynamite, for which shipment is denied to the complainant.

No testimony was offered by complainant at the hearing beyond the statements contained in the complaint, and the Board sought such information as it found obtainable relative to the requisite amount of traffic in dynamite over the defendant's line from Burlington to Barre, per annum, in case the same was transported by defendant company.

It appears that the explosives principally in use for blasting purposes at the granite quarries of Barre are species of powder which are hauled by teams from Rutland or from Burlington, and that to transport these explosives, and especially dynamite, as freight in trains with other freight would seem reckless. If carried at all, it should be in a special train, accompanied by trainmen acquainted with its dangerous character and expert in its handling and care.

Under such conditions it might be considered practicable, in a State or county where such commodity necessitated a large traffic and was of extensive commercial interest to great mining and quarrying industries for special trains to be provided at stated times and run by experts in the handling of such explosives and under careful rules and special orders, where it became a practical necessity in order to meet the operations of the business.

But the Board has in view that the requirements of the article of dynamite in the quarries and mining regions of this State are limited, and that the haul by highway transportation from the lake to the principal places of use in the State is not so long or so expensive as to appreciably impair the prosperity of the quarrying and mining business of the State.

The Board also notes the general policy of the trunk lines of the New England railways with respect to this class of freight traffic, whereby transportation is refused in the interest of public and corporate protection and safety.

Also, the Board is unable to find that its transportation is encouraged or permitted by the statutes of any State, but

that it is expressly prohibited by some and carefully guarded almost to the limit of suppression by others.

In Massachusetts the regulation of the transportation of these explosives is in the hands of the Railroad Commissioners, but railroad companies may decline to transport them under any circumstances. In New Hampshire their transportation is wholly forbidden by law. In the other New England States the statutes are silent, and the companies assume the responsibility and risk, or decline it as they choose.

The extremely dangerous character of this high explosive, and its terrific destructiveness to life and property in the vicinity of its explosion is a matter of common knowledge about which no court needs expert testimony.

The common law relating to the receipt and carriage of dangerous property by common carriers has ever been well defined. No railroad company is under obligations to take or transport goods of such dangerous or combustible character as will endanger the safety of its employes, its property, or the safety of its patrons or their property, without the express direction of statute law. These companies and all common carriers are not only excused from receiving and carrying such commodities, but, if they consent to receive them, they are holden for all the consequences that may happen by way of injuries resulting therefrom to such of their employes and customers as are not cognizant of the character of such freightage.

If the Board could find warrant in the statutes of this State for making a recommendation for a change in the Rule No. 12 of the defendant company, above quoted, in any case it would not feel justified in doing it under the circumstances and limited exigencies of this case.

The moderate advantages which would inure to the producers and consumers of this article of merchandise in its limited demands, even if a permitted article of carriage, seems quite incommensurate with the great peril to person and property which would attend its transportation.

The Board, therefore, declines to make recommendation as called for by the complaint.

By the Board,

ALFRED E. WATSON, *Clerk*.

COMPLAINT OF SELECTMEN OF TROY.

SUBJECT :—ALLEGED INSUFFICIENCY OF NORTH TROY BRIDGE.

TROY, VT., Oct. 25, 1888.

HON. SAMUEL E. PINGREE, *Chairman Board of Railroad Commissioners*.

Sir:—We, the Selectmen of the town of Troy, in the County of Orleans, and State of Vermont, would respectfully call your attention to the railroad bridge in the village of North Troy.

The bridge is a part of the S. E. Railway and is operated by the Canadian Pacific Railway.

The bridge is in our judgment unsafe and not sufficiently supported and is more than one hundred feet above the river. It demands immediate investigation.

Respectfully yours,

J. W. SHELDON,

WM. DONAGAN,

H. B. PARKHURST.

Selectmen of Troy.

The foregoing complaint was duly referred to the railway corporation and the following reply was received:

THE CANADIAN PACIFIC RAILWAY COMPANY.

ONTARIO AND ATLANTIC DIVISION.

GENERAL SUPERINTENDENT'S OFFICE.

MONTREAL, Nov. 8, 1888.

ALFRED E. WATSON, ESQ., *Clerk, Railway Commissioners, Montpelier, Vt.*

Dear Sir,—I duly received yours of the 30th ult., enclosing copy of complaints made by the Selectmen of North Troy.

I have only to say that it is not the policy of this Company to run over bridges, which we do not consider safe.

The bridge at North Troy is inspected frequently, and it has recently been examined by our engineer, who reports it in a perfectly safe condition.

I do not understand that the Selectmen of North Troy have any-

thing more to do with this matter, than any other citizen of the State. We will meet the Commissioners there, or have our engineer meet them at any time for the further inspection of this bridge, if you consider it necessary.

Yours truly,

T. A. MACKINNON, *Gen. Supt.*

Thereupon the Board caused the bridge to be carefully examined by Prof. Robert Fletcher, of the Thayer School of Civil Engineering, Dartmouth College, and report to be made, which is as follows :

THAYER SCHOOL OF CIVIL ENGINEERING,
DARTMOUTH COLLEGE.

HANOVER, N. H., Nov. 26th, 1888.

HON. SAMUEL E. PINGREE, *Chairman of the Board of Railroad Commissioners, State of Vermont.*

Sir,—I have the honor to submit the following report of an inspection of the railroad bridge at North Troy, Vt., made by me at your request. In company with Col. T. C. Fletcher, member of the Railroad Commission, and with two young men who went with me as assistants, I arrived at North Troy, late on the 22d inst. The following day was devoted entirely to careful examination and measurement of the structure. The presence and aid of Col. Fletcher greatly facilitated our work and was nearly indispensable in many ways, as for securing information, etc.

Mr. Belknap, engineer of the Canadian Pacific Railway, on this division, was on the ground, and courteously gave all desired information and afforded every facility asked for during the day.

The bridge was built about sixteen years ago, in three spans. The middle span, directly over the Black river, has a length of 162 feet, between end angle blocks. The ends are borne by two stone piers which rest directly upon the ledge on the sides of the chasm. Height of trusses 19 feet, distance between them about 13' 8" centre to centre. At each end of this span is a 50 feet span reaching from the pier to a narrow stone abutment. Height of smaller trusses 15 feet; distance between them, 13' 8". All the trusses are of the Howe type.

During the first seven or eight years the bridge was entirely uncovered and left unpainted. About ten years ago the bridge gave way under a passing freight train headed by two locomotives, such as were in common use at that time. The lower chords of the mid-

span were pulled apart, causing the bridge to sag excessively, but fortunately the train got off without producing complete collapse. In order to utilize the bridge as soon as possible the company then operating the road (the "Southeastern") were obliged to make immediate and hasty repairs in an unfavorable season,—the month of March. Two cribs of log-work were built and sunk in the stream, and such stone as was readily procurable was tumbled in, in the best fashion permitted by the ice and the stage of the water, but the conditions were not favorable for thorough work. Upon each of these cribs a timber trestle, a little more than 50 feet high, was raised, the bridge lifted by jack-screws, the broken chords re-inforced by an extra chord of nearly the same size and construction as the first (bolted to and keyed underneath the broken member across several of the middle panels), and the trestles then made to do duty as piers. The accompanying rough sketch shows the middle span and ends of the side spans, uncovered, the arrangement of the crib-work and trestles and the extent of the re-inforcement of the lower chords.

Since that time the feet and sills of the trestles and the crib foundations have become greatly damaged, the logs being loosened, the stone filling displaced, and the whole structure made to quiver and sway by the impact of ice and débris during spring freshets.

The foregoing alleged facts as to the history of the structure rest upon statements made by leading citizens of North Troy, especially the Selectmen, one of whom is a highway-bridge builder.

The Canadian Pacific Railway Company, which has operated this road a little more than a year, has recently repaired the trestles. The engineer of the company stated that all the timber of the trestles has just been thoroughly examined and found to be sound, with the exception of some near the bases, which has been replaced, although he claimed that even that was not wholly unserviceable. He considers that the crib-work foundations are safe. The company's men were then putting in blocks between the tops of the trestles and the trusses, and had also placed a single trestle-bent under the first panel at the east end of main truss. A similar bent is in place at the west end. These are shown in the sketch.

Inspection.—It was impracticable for us to make satisfactory examination of the crib-work foundations on account of high water.

As to the trestles it is sufficient to say that the design is good; they contain abundant material, well disposed, and have a degree of stability like that of a well-braced, old style "four-post bedstead." As long as the timber is sound and the foundations secure, these supports are abundantly safe.

As to the mid-span of the bridge, however, the placing of two intermediate supports quite alters the conditions of stress, especially in the web members (braces and rods). The main braces of a Howe truss lean towards the centre, and, for a truss of this span, are in pairs, with a counter-brace, in direction of the other diagonal of the panel, pinned between them. The strains in the braces and rods increase from the middle, where they are small, towards the ends, where they are greatest. In this case the trestle piers divide the long span into three spans, each a little less than 45 feet in the clear. In the middle span of these three the main braces are, of course, properly disposed for service, but in the other two the counter-braces nearest the trestles are *compelled to do duty as main braces*. Again, in the single long span the upper chord had only a compressive and the lower chord only a tensile stress, increasing from the ends towards the middle, but with the intermediate supports the upper chord over the trestles is in *tension* (where the butt splices are not intended for that kind of stress) and the lower chord, at and near these supports, is in *compression*. A simple and brief computation will indicate the probable safety of the trusses. But we must premise that there are many conditions which cannot certainly be included in a calculation; among which are: uncertainty as to the quality of the iron, the actual condition of all the timber, the allowance to be made for shock due to rapidly moving and heavy trains (over a bad floor and track-way on top), etc. Some of the timbers which appeared upon the outside to be unsound were examined and found to be in excellent condition, but as no suitable ladders were procurable we did not make a complete examination of all the timber. Hence the results which follow are unduly favorable to the bridge.

Assumed dead load 1200 pounds per foot. (This should be 1500 pounds for a proper design, but this bridge is light.)

Rolling load 3600 pounds per foot, uniformly distributed. This does not *fully* provide for concentrated loads on the drivers of heaviest modern locomotives, and is none too large for the heavy traffic of this great "through" line. Some bridge companies are now adopting for calculation a *uniform* rolling load of 4000 pounds per foot, which is nearly the actual effect produced by coal cars as recently built and loaded.

On this basis the stress to be carried by braces marked *i*, in one truss, is 54,200 pounds. These, being long pillars, need to have about $31\frac{1}{2}$ square inches of section to barely resist rupture. (Table in Trautwine's Engineer's Pocket-book, Editions of 1885 and 1887, page 462

Actual section, (see table of dimensions on page opposite the sketch,) $132\text{sq}''$. Factor of safety, referred to *ultimate* strength, $\frac{11.3}{4.2}$ — 4.2 nearly, which gives a small margin of strength for timber.

The rods marked *c* must hold 48,000 pounds. Their gross section is about $4.44\text{sq}''$, but the rods are not upset; hence, deducting for the screw thread, the effective section is about $3\text{sq}''$. Assuming the strength of rupture at 40,000' (as quality is uncertain and *some of the rods are welded*.) we have a factor of $\frac{3 \times 40000}{48000}$ — less than 3. But the trestle support being within about 3 feet of the foot of the rod, the stress will probably be much less, and the factor as to ultimate strength, doubtless exceeds 4 or $4\frac{1}{2}$. The former figure, (3), applies if the trestle settles so as to throw full stress on braces *h*.

As to the chords in mid-span, the north one, which is re-inforced and has same dimensions as for whole span, is superabundantly strong. But on the south side the re-inforce does not extend across, and the breaks have destroyed the efficiency of the member from two-thirds to three-quarters. Assuming the bending moment and chord stress to be due to three panel loads, we have $\frac{3 \times 24000 \times 45}{8} = 22,500$. A factor of 8 to 10 will allow a stress of 800 pounds per square inch. Then $\frac{22500}{8} = 28\text{sq}''$, nearly. Actual gross section is $33.5\text{sq}''$; even one-quarter of this is $8\text{sq}''$; hence abundant strength.

Examining now the two adjacent partial spans, we remark that the effect of trestle bents near the piers is bad, because deflection near the middle, as at *x*, tends to lift the end of the truss from the pier supports. The spans being no longer than the middle one, stresses in main braces and rods will not be essentially different, while those members are here much larger. But, as to the *counter* marked *f*, now compelled to do duty as mains, we find that they must sustain about 45,000 pounds. Being very slender pillars, we find a cross-section of $40\text{sq}''$ needed simply to *resist rupture*. Actual section $42\text{sq}''$. Hence only the pinning to the mains and the stiffness of the chords would save them from rupture under the assumed loading.

An examination of the complete side spans in a similar way shows that the chords are abundantly strong. In fact they are in good condition, except that in the west span, south lower chord, second panel from the abutment, one of the splices has failed (owing to a *knot* in the splice-block) by pulling apart. The end braces have a factor of safety of about 4 and the end rods of only 3.

Deflection at the middle. This was observed by aid of a transit pointed at a graduated slip tacked to the lower chord. Under a standard freight engine and ordinary freight train the slip gradually

settled $\frac{3}{4}$ " as the train came on and as gradually rose when it passed off. Under an express train drawn by a heavy passenger engine, the deflection was $\frac{5}{8}$ ". No noticeable lateral swaying of the structure could be detected by "eye-sighting" between fixed points.

The ends of the chords of the main span are badly crushed at the feet of the main braces. Perhaps the single trestle bents relieve this a little.

The *original* middle span was not half strong enough for our assumed load. The rods and braces at the ends have a factor of safety of less than 2. While lower chords have a factor of about 4, *theoretically*, their actual failure under a much lighter load was an indication of structural weakness. In fact, much of the wood is wholly unsuited for a *lower* chord, being cross-grained and knotty. But, worst of all, some of the splice-blocks *have knots at their most vital point*, the smallest cross-section, and such have almost invariably failed. Competent witnesses stated that the workmanship was poor throughout, the keys and splice-blocks not being tightly fitted, the joints, therefore, from the very start, being loose and inefficient. The usual camber for that span is about 3 inches; the builder told certain citizens that he put in 5 or 6 inches additional; *if so*, the effect on the bridge was not beneficial, probably.

The location of the bridge subjects it to very hard usage. It is in a hollow between two considerable grades. The grade on the bridge from the east end westward is about 0.7 per cent. Close to the east end is a short 7° curve. Consequently, engine drivers with heavy freight trains in charge, (especially "through freights") are obliged to keep up speed in order to pass the curve and the grade beyond. In the other direction trains are approaching the station, which is only some 300 yards distant, and therefore, must use brakes upon the bridge.

Trackway and Approaches :—The general arrangement and condition of the trackway is bad. The number of ties should be doubled, at least, as they are now at distances apart varying from 12 to 24 inches. Many of the joints between the rails are low. Two rails on the roadway, near the east end, have defects similar to that which caused the great disaster in Hartford, Vt., only in this case the flaws are plainly seen on top of the rail. The material is the same as that of the Hartford rail, viz: German steel, rolled at St. Albans, Vt. The rails are marked "St. Albans, 1880." The engineer stated that the company is removing rails of this make as fast as possible, because they so generally develop these defects. At the west end are two

other rails with like defects not quite so serious, one rail being on the bridge, the other just beyond it.

The covering of corrugated iron is in bad condition and must allow considerable water to run down inside on to the upper chord at some points.

An inside guard-rail of iron, 3" to 6" distant from the other rails, is firmly fastened to the ties at sufficiently numerous points by spikes and heavy castings. This is an excellent arrangement, perhaps the best, for a bridge of this kind, where a sloping roof must be made above the floor timbers. These guard rails come together midway in the track, at the west end about 60 to 80 feet from the bridge and at the east end about 150 or more distant. The efficiency of this device was proved quite recently. A freight car in a west-bound train (and therefore probably lightly loaded or empty) had one truck derailed near the east end, and in that condition traversed the bridge and several miles beyond, before the mishap was discovered. If, however, it had been the six-wheeled truck of a palace car, doubtless the widely spaced ties would have been bunched, havoc made with the floor timbers, and the train alone, or both bridge and train, have suffered disaster.

In the opinion of your inspector, the very narrow T abutments should be replaced by wide abutments with ample wing-walls. Necessarily, the earth filling near the masonry is very narrow, and this being a clayey soil, is unstable at best. It was washed away from the ends of the ties in places, and, by a little neglect, in wet weather a heavy train might slump down just at the rear end of the wall. By the existing arrangement, the danger from a derailed car is much increased because extended considerably beyond the ends of the bridge.

Recommendations.—In view of the above facts and deductions, I arrive at the following conclusions, viz:

1st. The *bridge*, after the recent repairs, is *not extremely* dangerous, but the margin of safety is too small. For iron, good practice no longer considers the safety-factor with reference to ultimate strength, but as to elastic limit. In this relation the margin is much too small for members like the vertical rods subjected to very sudden application of load.

2d. Any doubt as to the perfect security of the crib foundations should be settled at once by a thorough examination, followed by necessary repairs.

3d. Each of the counter-braces marked *d* and *f* in the sketch should be reinforced without delay by braces of at least the same size placed parallel to it, one on each side.

4th. The track-way over and near the bridge should be reconstructed, without delay, by increasing the number of ties so that the clear space between any two shall not exceed six (6) inches

5th. The filling near the ends should have immediate attention and repairs; likewise the iron roofing.

6th. The defective rails should be replaced by sound ones at once.

Finally. The existing structure must be regarded as a temporary thing—a makeshift—and probably is so regarded by the railroad company. It is not adequate to carry the very heavy and increasingly heavy traffic of a great trans-continental line, without constant watching, and is, in a measure, unsafe, until the improvements suggested are made, both in trusses and track-way. But we may hope that this bridge will be replaced before long by a heavy structure of iron or steel, fully adapted to the rough and incessant service which the peculiar conditions of the locality and the great traffic of the Canadian Pacific Railway must impose upon it.

All of which is respectfully submitted.

ROBERT FLETCHER,

Prof. of Civil Engineering,

Assoc. Am. Soc. Civil Eng'rs.

ADDENDUM.

One of my assistants, Mr. F. B. Sanborn, measured the deflection of one of the *floor beams*, under a passing engine. Its absolute deflection was one-half inch ($\frac{1}{2}$ "), which is about $\frac{1}{316}$ of its clear span between trusses. The usual allowance for such deflection is $\frac{1}{416}$ of the clear distance between supports.

The other assistant, Mr. O. E. Hovey, called attention to a particularly low joint in the track on the bridge, which, when a train is passing, even at only 15 miles per hour, which is 22 feet per second must induce great shock on the bridge.

Levels were taken along the south rails at every joint and half way between, and the resulting profile is very uneven.

The ends of some of the floor timbers, over the south truss, were *shimmed* up. It is almost unnecessary to point to the probability that such shims may readily be loosened.

Some of the main braces were shimmed at the ends, and, consequently, they have very inadequate bearing.

Mr. Hovey took photographs of the most defective joints, and two general views of the bridge (four in all).

The vertical sway bracing was nearly all loose, and some of it split and twisted—in fact, a large part is practically useless.

ROBERT FLETCHER.

This report was referred to the railroad company by the following letter :

STATE OF VERMONT.

BOARD OF RAILROAD COMMISSIONERS.

MONTPELIER, Dec. 3, 1888.

T. A. MACKINNON, Esq., *General Superintendent, Atlantic and Ontario Division, Canadian Pacific Railway, Montreal, P. Q.*

Dear Sir :—The complaint of the Selectmen of Troy, concerning the railroad bridge in North Troy village, over Black river, was duly referred to you by this Board, and your reply of the 8th ultimo. was duly received.

In view of the same, the Board did not deem the matter of such moment that it would be proper to put your company to the inconvenience and expense of attending a special inspection of the bridge complained of until the Board, at least, had a better knowledge of the condition of the same than the complaint specified, or its personal inspection would make possible; and to determine whether the complaint had possible merits, and for its own information, it caused an inspection and report to be made to it by Prof. Robert Fletcher, of the Thayer School of Civil Engineering of Dartmouth College—a copy of which said report is herewith enclosed. The Board would esteem it of great assistance to it in determining what it should do in the matter of this complaint, if you would have your civil engineer, Mr. S. F. Belknap, or such other expert as you may direct, inspect the bridge and furnish the Board a copy of his report of such inspection as soon as may be.

Upon examination of the same, with the report of the inspection by Prof. Fletcher, the Board will be better able to determine its duty in the premises, and whether an inspection by the Board, on notice, should be had.

By the Board,

ALFRED E. WATSON, *Clerk.*

The following correspondence and foot note are given to show the further action of the Board in this case :

THE CANADIAN PACIFIC RAILWAY COMPANY,
ONTARIO AND ATLANTIC DIVISION.
GENERAL SUPERINTENDENT'S OFFICE.

MONTREAL, Jan. 10, 1889.

ALFRED E. WATSON, ESQ'R., *Clerk, Railway Commissioners of Vermont, Montpelier, Vt.*

Dear Sir :—I beg to enclose a statement from our Chief Engineer, Mr. Peterson, with regard to North Troy bridge, which I trust will be satisfactory to your Board.

As I explained to Commissioner Fletcher, it has been the intention of the company to renew this bridge in the near future.

We consider it as safe, for the present, for the traffic passing over it, as any bridge we are using.

The suggestion as to additional bracing and ties is being carried out. It is now our intention to erect a new bridge, and have it in place in the near future.

In the meantime, every attention will be given to the present structure, and it will be maintained in a safe condition for the passage of trains.

Yours truly,

T. A. MACKINNON, *Gen. Supt.*

THE CANADIAN PACIFIC RAILWAY COMPANY.
ENGINEER'S DEPARTMENT.

(North Troy Bridge.)

MONTREAL, Jan. 8, 1889.

T. A. MACKINNON, ESQ., *Gen'l Supt., Atlantic and Ontario Division, Montreal.*

Dear Sir :—I am in receipt of yours of the 5th ult., enclosing a report made by Prof. Fletcher on the condition of the North Troy bridge. I made a personal inspection of the above named bridge on the 22nd December last, and beg to state that I agree generally with the report made by Prof. Fletcher as to the condition of the structure. It is certainly not such a bridge as should be on the main line of the Canadian Pacific Railway; but, being there, we should take as much out of it as possible, so long as it can be kept safe, and I consider it safe for the present.

I have, however, given instruction to have the counter-braces, *ff*, which, owing to the trestles dividing the long span into three spans, act as main braces, strengthened; also, the wind bracing tightened, and the ties placed nearer together, (*viz.*, 4' apart).

It is the intention of the company to erect a new bridge at this point, and I am now engaged on plans for the same, and hope to have it in position during the present year.

I found that the German steel rails, rolled at St. Albans, had been replaced by other rails.

Yours truly,

P. ALEX. PETERSON, *Engineer*.

STATE OF VERMONT.

BOARD OF RAILROAD COMMISSIONERS.

HARTFORD, Jan. 14, 1889.

MESSRS. J. W. SHELDON, WM. DONAGAN, H. B. PARKHURST, *Selectmen of Troy*.

Gentlemen:—Referring to your complaint in reference to the insufficient and unsafe condition of the railroad bridge at North Troy, Vt., on the line of the Canadian Pacific Railway Company, I would respectfully say, that this Board has had said bridge inspected by Prof. Robert Fletcher of the Thayer School of Civil Engineering, Dartmouth College, and an inspection has also been made since by the Chief Engineer of said company.

The Board has just received a letter from General Superintendent MacKinnon, transmitting a statement of Chief Engineer Peterson, a copy of each of which I enclose to you herewith.

In view of the action already taken by the said railroad company, and the assurances given by its officials, do you desire a present hearing, or shall the case be suspended to await further developments.

Yours very respectfully,

ALFRED E. WATSON, *Clerk*.

STATE OF VERMONT.

BOARD OF RAILROAD COMMISSIONERS.

HARTFORD, Feb. 4, 1889.

MESSRS. J. W. SHELDON, WM. DONAGAN, H. B. PARKHURST, *Selectmen of Troy, Vt.*

Gentlemen:—Referring to my letter of the 14th ultimo, I beg again to inquire of you if, in view of the action already taken by the Canadian Pacific Railway Company, and the assurances given by its officials in communications, copies of which I have heretofore sent you, you desire a hearing at present on your complaint in reference to the insufficient and unsafe condition of the railroad bridge on the line of said company, at North Troy, Vt. I have thus far received

no reply to my previous letter of inquiry, and would respectfully ask that you make reply by return mail, under cover of the enclosed addressed, postpaid envelope, so that the Board of Railroad Commissioners may finally decide what action should be taken in the premises at the regular monthly meeting the 6th inst.

Yours very respectfully,

ALFRED E. WATSON, *Clerk.*

ALFRED E. WATSON, ESQ., *Hartford, Vt.*

Replying to your favor of the 4th inst., I would say I answered yours of the 14th ultimo, but presume it miscarried.

Ever since complaint was made to your Hon. Board the Canadian Pacific have been repairing the bridge here and are still at it, and we are assured that they will place a new bridge on the site of the present one as soon as possible.

Under these circumstances we are not disposed to urge the matter further at present.

I am, &c.,

Very respectfully yours,

J. W. SHELDON, *Chairman,*
Selectmen of Troy, Vt.

North Troy, Vt. Feb. 7, 1889.

NOTE.—Whereupon the Board, being satisfied that repairs were made on this bridge rendering the same as safe as was practicable for such a structure, and being assured of its early displacement for an iron bridge, the case was suspended,—and the bridge was destroyed by fire last autumn.

COMPLAINT OF SELECTMEN OF SWANTON.

SUBJECT: DANGEROUS HIGHWAY GRADE CROSSING.

SWANTON, VT., Dec. 5, 1888.

MR. ALFRED WATSON.

Dear Sir:—We should like to call the attention to the Railroad Commissioners about a railroad crossing just south of the depot on the west side of river (it being the one that Stephen Aseltine had some trouble about and Com. came up to look it over).

Now there is two main line tracks; one is the B. & L., and the other is the C. V. R. R. And two side tracks,—one on each side of these main-line tracks. And when there is cars left on those side tracks, you can see that it makes it very blind and dangerous for people to travel, and there is not much time in the day but what this crossing is used both by the railroad and the traveling public.

The people here are constant making complaints to us, and we trust you will see to this at once and place a flagman there, which we think is not asking too much.

Respectfully,

O. K. BROWN,
WARD H. BARNEY,
Selectmen.

A. L. ASELTINE,
J. A. BARNEY.

This complaint was referred by copy to the Central Vermont and St. Johnsbury & Lake Champlain Railroad Companies, neither of which consenting to the placing of a flagman as asked for, a hearing was appointed upon notice to the said companies and complainants, pursuant to which the Board met and examined the premises and surroundings, and, upon agreement and request of parties, the complaint was suspended by the Board, since which no further action on the part of the Board has been invoked by the complainants.

The agreement above referred to is as follows:—

AGREEMENT.

1st. That the crossing shall be planked with three lengths of ordinary length plank, or there shall be 36 feet of planking;

2d. That a post shall be placed on side track at a point so that cars shall not project beyond the buildings on the west side of tracks;

3d. That cars shall not be allowed to stand on the side track, on the east side of main tracks and north of crossing, so that they shall project beyond building on east side of tracks, and just north of crossing; nor beyond a point this day fixed;

4th. That cars shall not be allowed to stand on the side track east of main tracks, south of crossing, to interfere with the crossing, or obstruct the view on the south side so as to incommode the passing of teams on the highway, which shall be determined by a point this day fixed;

5th. That the snow shall not be allowed to accumulate, or to be piled on the planking of said crossing.

COMPLAINT OF REV. P. McMILLAN.

SUBJECT: SUNDAY TRAINS.

BARRE, VT., Jan. 18, 1889.

HON. S. E. PINGREE, *Chairman, Board Railroad Commissioners.*

Dear Sir :—May I ask if a “permit” has been granted to the “Barre Railroad” or its contractors and builders to run trains and lay track on Sunday? This road runs from Barre village to the quarries. Has a “permit” been given to the Wells River Railroad Company or others to run trains and lay track between Barre village and Montpelier Junction on Sundays? If not, let me request, in behalf of the churches and good citizens of Barre, that no permit be granted until the opinion of the citizens generally be heard.

Trains have been running for six Sundays past, with no excuse on account of “public necessity,” and an effort will be made to stop the trains, if they are not authorized to run.

Yours respectfully,

P. McMILLAN, *Pastor Cong'l Church.*

STATE OF VERMONT.

BOARD OF RAILROAD COMMISSIONERS.

HARTFORD, Jan. 19, 1889.

REV. P. McMILLAN, *Pastor Cong. Church, Barre, Vt.**My dear Sir* :—Yours of yesterday is rec'd. You ask:

1st. If a permit has been granted to the Barre Railroad or its contractors and builders, to run trains and lay track on Sunday?

2d. If a permit has been given to the Wells River Railroad Company, or others to run trains and lay track between Barre village and Montpelier Junction on Sundays?

To both inquiries I would say no. Your request in behalf of the public for a hearing, in case such permits are sought, will be noted and regarded by the Board of Railroad Commissioners.

Respectfully and truly your obedient servant,

SAM'L E. PINGREE, *Chairman.*

The Chairman was subsequently informed that the attention of the railroad companies was brought to the foregoing correspondence and an early discontinuance of the practice complained of was promised, which has been complied with.

The subject matter of the running of Sunday trains is treated of at length in the matter of the complaint of citizens of Middlebury in this Report, and the same is referred to.

COMPLAINT OF H. S. BROOKINS.

SUBJECT: THE BALDWIN DRY BRIDGE ON ADDISON RAILROAD.

This matter was brought to the attention of the Board by the following letter:—

RICHVILLE, Feb. 12, 1889.

HON. E. J. ORMSBEE, *Railroad Commissioner.*

Dear Sir :—I would call your attention to the condition of the railroad bridge on the Addison Railroad, known as the dry bridge, situate near the farm owned by E. A. Baldwin and known as the "Skinner farm" in Whiting.

In my opinion it is in a dangerous condition and unsafe to be used for conveying trains.

Yours truly,
H. S. BROOKINS.

This letter was referred to the railroad company and it elicited the following reply :

CENTRAL VERMONT RAILROAD.
2ND VICE-PRESIDENT'S OFFICE.

ST. ALBANS, VT., Feb. 19, 1889.

ALFRED E. WATSON, ESQ., *Clerk, Hartford, Vt.*

My dear Sir :—I beg to acknowledge receipt of your favor of the 18th, enclosing copy of letter from H. S. Brookins of Brookfield, (Richville) under date of February 12, calling attention to the railroad bridge on the Addison Railroad known as the Baldwin bridge.

I am frank to confess to you that in appearance this bridge is the most disreputable looking bridge there is on the line, but so far as safety is concerned its appearance is very deceptive.

The fact is, the bridge in the opinion of our bridge men is perfectly safe, and as good as any bridge on the line of the road. Quite recently complaint was made to this Co. that the bridge was unsafe and we took occasion to send Mr. Hobart with Superintendent Burdett and Bridge master L. E. Roys, to make a thorough examination

not only of this, but all other bridges on the Rutland division, and the following is the report of Mr. Hobart :—

“ No. 13 Baldwin bridge. This bridge is fifty feet long, stone abutments 15 feet high. Bridge is a pony truss and is sound and good for a long time, but the stone work is tumbling down and is of no consequence so far as the safety of the bridge is concerned, as it does not depend upon it, but rests wholly upon horses. It spans a little brook and the main highway to Shoreham village. There has been a large quantity of timber resting diagonally one end against the abutment and the other the embankment over the brook against the highway so that it is in full view of every one who passes by that place. It is not strange the public generally should feel anxious about it, and still the bridge is doubtless as safe as any on that road.”

I enclose with this a rough pencil sketch to give you an idea of the situation. Diagonal timbers are simply used to keep the stone work on the left hand side from falling in. They have nothing whatever to do with the support of the bridge. The stone work on the left hand side gives no support whatever as I understand to the bridge, the bridge being supported entirely by the horses under it. So far as the bridge itself is concerned, I think no one who is at all familiar with bridges would say for an instant that it is unsafe or anything but as perfectly good as the day it was put in. This in general is the view expressed by our experts on the situation. At the same time we have felt the force of the public sentiment in respect to the bridge, and we intended to rebuild the stone work next season. Not, however, on account of the unsafe character of the bridge, but simply for the looks of the thing.

Perhaps you will remember we examined this bridge quite carefully at the inspection a year ago last summer, and you will remember the road-bed at each approach to the bridge is composed of clay which slides and crowds the abutments, and it is owing to this crowding out of the stone work that causes the appearance it bears. I am perfectly willing to send our bridgeman with any one Mr. Brookins may select to examine into the question of the safety of the bridge if he is not satisfied with the explanation I have given, and will kindly appoint a day for this purpose.

Very truly yours,

E. C. SMITH, *Vice-Pres't.*

Which answer of the company was referred to the complainant, who, still insisting that the condition of the bridge

was unsafe, the Board requested Prof. Fletcher to inspect the same and advise the Board of its actual condition.

The following is his report, the sketch being omitted:—

THAYER SCHOOL OF CIVIL ENGINEERING,

HANOVER, N. H., March 19, 1889.

HON. SAM'L E. PINGREE, *Chairman Board of Railroad Commissioners, State of Vermont.*

Sir:—In compliance with the directions received from the Clerk of the Board, and in accordance with arrangements made through him, I made an inspection of the bridge on the Addison Railroad, in the town of Whiting, Vt., on the 15th inst. Hon. E. J. Ormsbee and Col. T. C. Fletcher were present on behalf of the Board, and General Superintendent J. M. Foss and Bridge Superintendent L. E. Roys, represented the Central Vermont Railway Company, which now operates the road, and afforded every facility for making a proper examination. Mr. H. S. Brookins, the complainant, was present to show cause for his statements.

I now have the honor to submit the following report:

The bridge had, when built, a clear span of about 47 feet, the trusses being 50 feet long between feet of end braces. The style of framing is that known as "the straining beam," and the dimensions of trusses and arrangement of flooring constitute it a "pony truss" bridge. It crosses a highway and a brook, the latter being 15 feet, more or less, below the bridge. The end supports *were* stone abutments, but these are now in large degree relieved of their duty.

The soil throughout this region is clay. The higher abutment and wing-walls, which are washed by the brook, have been gradually crowded forward, during many years, by the pressure of the embankment, and have been shored up by timber struts resting against the opposite bank of the brook. These have been increased in number, from time to time, as needed, so that their ends and the necessary bolster pieces have to cover a large part of the face of the stone-work in order to prevent an overthrow. This masonry, according to the testimony of Bridge-engineer Roys, is built upon a timber platform buried well below the surface of the bank and of the brook, in which there is always more or less water. The trouble, therefore, is due to the material of the soil, which is to be controlled only with difficulty, either when quite wet or during periods of freezing and thawing.

The other and smaller abutment and wing-walls which bound the road on one side, are far less disturbed.

No reliance has been placed upon these supports for some years past, but a "horse" or trestle-bent has been put under the middle of the bridge and as nearly under each end as the displaced position of the masonry would allow. These "horses" support four heavy stringer beams, two nearly under each rail, and super-imposed, the floor timbers of the bridge intervening.

The accompanying sketch shows the structure and the arrangement of the parts, in all respects which are essential to this inquiry. The case did not demand many precise measurements; hence some of the details are shown only generally and approximately.

At the end of the higher abutment the iron rod connecting the ends of the trusses has been pressed by the abutting bed-stone and filling, a foot or more out of line, with the effect to displace the ends of the trusses and cause a serious twisting and longitudinal pressure upon them. But, in fact, the bridge and propped-up abutment, although not quite unserviceable, are not depended upon; the trestle-bents and heavy stringers constitute an entirely independent trestle bridge, which does nearly, if not quite, the whole duty. So long as the overthrow of the displaced masonry is prevented, as at present, the "horse" at that point will do its duty properly, while the timbers are sound.

A careful examination of the timbers throughout the structure showed that they are in good condition. To determine the sufficiency of the timbers to carry the loads, the following investigation is stated:

The usual formula is: $\frac{R b d^2}{6} = \frac{W l}{8}$

{ Internal moment } = { External moment of
of fibre strains, { — uniformly distributed load,

in which b—breadth of beam in inches;

d—depth " " " "

l—length " " " " = 16' x 12;

W—total load uniformly distributed;

R—modulus of rupture, for spruce about 6,000 pounds, a low average of many experiments.

Then $\frac{6000 \times 12 \times 144}{6} = \frac{W \times 16 \times 12}{8}$; $\therefore W = 72,000$ pounds, for one of the 12' x 12' beams.

For one of the 10' x 10' beams: $W = \frac{6000 \times 10 \times 100}{6}$. $\frac{8}{16 \times 12} = 41,660$ pounds. Hence two 12' x 12' and two 10' x 10' require 72,000 + 72,000 + 2 (41,660) = 113 tons to produce rupture. Mr. Roys says that the

engine used on that road weighs 26 tons. Making due allowance for any possible concentration of part of its weight on 16 feet, and for the weight of the beams, there could hardly be the equivalent of 28 tons uniformly distributed, from the engine, but there might be as much from two adjacent trucks of two coal cars. However, the factor of safety for *any* loading from the small traffic of this line will generally exceed $\frac{1}{4}$, but for coal cars might fall to $3\frac{1}{2}$ or a little less. But, if we include the bridge proper and abutments, the factor for the whole structure is certainly 5, and usually more.

The tables for girder beams under flexure, given by Trautwine (*Engineer's Pocket-book*, p. 512), show that the deflection under the heaviest load supposed might be a little more than half an inch.

But there is a dangerous feature which calls for special notice, viz: the condition of the trackway. The ties are short, irregularly spaced and too far apart, some of them being 28 inches from centre to centre, and there are no guard rails or any re-railing device. If a derailed car should be drawn across the floor a repetition, on a small scale, of the recent disaster at St. George, Ontario, is probable.

It is pertinent to remark that if the stone-work had been correctly built at first, according to good engineering practice, there need not have been a failure. With the kind and sizes of stone used, laid without mortar, the abutment should have had a spread of base equal to half the height of wall, battered one inch to the foot in front, and enough at the back to give a good bearing surface two feet wide on top (about 3" to the foot.) Then a thick deposit of coarse gravel should have been placed between all the stonework and the treacherous clay of the embankment, notwithstanding expense for distant hauling. Had it been preferably laid with hydraulic mortar, leaving proper weep holes, a thickness at base of 3-10th of the height would have sufficed.

It is the duty of your inspector to make adverse criticism upon the old iron rails, the condition of the track either way from the bridge, the antiquated rail connections, etc.; and,—while it may be beyond his province to mention circumstances of which the Board is already aware,—it would be unfair not to set over against such criticism the fact that the company now operating this line of road is not responsible for the original bad construction, and that the light traffic (only one short mixed train each way daily), does not necessarily require a high standard of permanent way.

Summary and Suggestions.

1. One of the railway officials states: "I am frank to confess

that in appearance this bridge is the most disreputable looking bridge there is on the line." This being the fact, the obvious remedy is entire reconstruction.

2. As to the allegation of the complainant that the bridge "is in a dangerous condition and unsafe to be used for conveying trains," such is *not* the fact in regard to the bridge proper, apart from the trackway which it supports. The bridge-engineer has thoroughly and intelligently done his duty to the extent of making a good and efficient piece of patchwork.

3. The trackway is such as to invite disaster, and should be immediately put in condition to correspond with the excellent standard which the Central Vermont Railway Company has achieved on its main lines throughout the State. While the chances for an accident, under the conditions referred to (and including the low rate of speed), are very slight, they do exist. Too many sad experiences prove that "It is the improbable which happens." The time and expense required for a proper trackway in this case would be trifling.

If the expression of my opinion be not uncalled for, I beg to suggest that inside guard-rails of iron, coming to a point in mid-track at some distance beyond either end of the bridge, are to be preferred to outside guard-timbers at some considerable distance from the rails, and with no protecting sheathing of angle iron over the inner edge. While other and more elaborate re-railing and guard device is to be preferred as more efficient, this (inside guard-rail) is very good, and sufficient in ordinary cases of derailment.

Respectfully submitted,

ROBERT FLETCHER,

Prof. of Civil Engineering,

Associate Am. Soc. Civil Eng'rs.

A copy of this report was sent to the complainant, and also to the railroad company, accompanied by the following recommendation:—

STATE OF VERMONT.

BOARD OF RAILROAD COMMISSIONERS.

HARTFORD, April 5, 1889.

To the Central Vermont Railroad Company, St. Albans, Vt.

Gentlemen:—In the matter of the complaint of H. S. Brookins of Shoreham, as to the safety of the so called Baldwin dry bridge on the Addison Railroad.

As to the above matter the Board respectfully reports and recommends as follows :—

The Board has caused the bridge in question to be examined, as appears by the accompanying copy of report of Prof. Robert Fletcher of the Thayer School of Civil Engineering, Dartmouth College, to which your attention is called, and has, in view of the communication of your 2nd Vice President, Col. E. C. Smith, under date of Feb. 19, 1889, touching this matter, our examination of the structure and Prof. Fletcher's said report, concluded as follows :—

That the public safety requires that said bridge should be reconstructed at the earliest day reasonably possible, and that in the meantime extraordinary precautions be taken to guard against accident by reason of the dangers and weaknesses pointed out by Prof. Fletcher in his said report.

By the Board,

ALFRED E. WATSON, *Clerk.*

This recommendation has not been complied with, at least only in part. In the spring and early summer of 1889, some repairs were made, including a renewal of the floor system, and some additional "patchwork" was done, whereby the structure has doubtless been strengthened and probably made reasonably safe for the light traffic to which it is subjected. In view of which facts the Board has not considered it wise to institute proceedings to enforce a literal compliance with its said recommendation.

This case is suspended.

COMPLAINT AND PETITION OF CITIZENS OF WINOOSKI.

SUBJECT: INSUFFICIENT DEPOT ACCOMMODATIONS.

To the Honorable Board of Railroad Commissioners :—

We, the undersigned, citizens of Winooski and vicinity, do hereby respectfully petition your Board to examine and investigate the condition of the passenger depot at Winooski, said depot being in a dilapidated condition and fails to meet the requirements of our village and the traveling community generally.

Winooski is one of the first stations on the Central Vermont Rail-

road as regards the amount of business done, and deserves better usage from the railroad company.

FRANK CARPENTER,
EDWARD H. HORTON,
and 50 others.

Winooski, March 12, 1889.

This complaint being referred to the railroad company it made answer thereto as follows:—

CENTRAL VERMONT RAILROAD.

2ND VICE-PRESIDENT'S OFFICE.

ST. ALBANS, VT., March 20, 1889.

ALFRED E. WATSON, ESQ., *Clerk, Hartford, Vt.*

Dear Sir:—I beg to acknowledge your favor of the 18th March, enclosing the complaint of citizens of Winooski, complaining that the depot there is in a dilapidated condition, and fails to meet the requirements of the village of Winooski and the traveling public generally.

I am somewhat surprised that the signers of the complaint should have appealed to the Railroad Commissioners on a matter of this character without first mentioning it to this company.

It has been our practice, and I think our record will bear it out, that we have attended to complaints made to us by patrons of the road as quickly, and as fairly as possible to do, and I do not quite understand why the Winooski people should go around us to the Commissioners without first giving us an opportunity to consider the case.

So far as I know, no complaint in this form has come to any officer of this company in respect to the depot at Winooski.

It has been our intention, as soon as we can get around to it, to take up the question of the depot at Winooski, and attend to it, but this we had not intended doing until summer weather.

Very truly yours,

E. C. SMITH, *Vice-Prest.*

Which answer was in turn referred to the complainants by the following communication:—

STATE OF VERMONT.

BOARD OF RAILROAD COMMISSIONERS.

HARTFORD, March 25, 1889.

MR. EDWARD H. HORTON, *Winooski, Vermont.*

Dear Sir:—Please find herewith enclosed copy of answer of the

Central Vermont Railroad Company to the complaint of yourself and other citizens of Winooski, of date the 12th instant, alleging that the passenger depot at your station is in a dilapidated condition, and fails to meet the requirements of the village of Winooski and the traveling public generally.

I am directed to inquire, whether the petitioners will be satisfied to await the active development of the intention of the railroad company, expressed in the answer to the complaint, or desire a present hearing in the premises? The Board is prepared to take any proper action desired herein.

Yours very respectfully,

ALFRED E. WATSON, *Clerk.*

To which reply was made as follows :

WINOOSKI, VT., April 20, 1889.

HON. SAMUEL E. PINGREE, *Chairman of Board of Railroad Commissioners.*

Dear Sir:—We will wait for summer weather, as the Vice President stated in his letter that it was the intention of the Railroad Company to build a new depot at Winooski this summer.

I think that Mr. Smith is wrong when he says that Winooski people never said anything about the depot.

I think that if he will inquire of the Superintendent of the Vermont Central, that he can give Mr. Smith an idea of the condition of our depot, for the Superintendent has talked with our station agent in regard to the depot, so I am informed.

Yours,

EDWARD H. HORTON.

And the case was thereupon suspended.

This matter was revived by this letter :

WINOOSKI, VT., Feb. 8, 1890.

SAMUEL E. PINGREE, *Chairman of Board of Railroad Commissioners.*

Dear Sir:—I sent a petition for a new depot at Winooski the 12th of March, 1889, and in that petition we called for an investigation to be made by the Hon. Board of the condition of our depot.

In reply to our petition I received a letter from you and also one from E. C. Smith, Vice-President of the Railroad. Mr. Smith in his letter said,—it has been our intention as soon as we can get around to it to take up the question of the depot at Winooski and attend to it, but this we had not intended doing until summer weather.

Summer has passed and we have the same old shell or rookery which is a disgrace to our prosperous village, which any Board would say is correct.

We now take up our old petition and call for an investigation of the condition of the Winooski passenger depot, which the Railroad Commissioners agreed to do through the letter of your clerk, Alfred E. Watson, in which he says the Board is prepared to take any proper action desired therein.

Yours,

EDW. H. HORTON.

And such further action was taken as indicated by the following correspondence :

CENTRAL VERMONT RAILROAD.

2ND VICE-PRESIDENT'S OFFICE.

ST. ALBANS, VT., March 11, 1890.

ALFRED E. WATSON, ESQ., *Clerk, Hartford, Vt.*

Dear Sir:—Referring to your favors of March 1st and 6th, in regard to Winooski depot, I would say that orders have been given to make such repairs as may be necessary on the depot, and the men will go to work at it at once ; probably by Monday next.

I can only express my regret that the people of Winooski did not see fit to communicate with us about this matter without taking it to the Board of Commissioners.

Truly yours,

E. C. SMITH,

Vice-President.

WINOOSKI, VT., March 17, 1890.

HON. S. E. PINGREE, *Chairman Board of Railroad Commissioners, Hartford Vt.*

Dear Sir:—Repairs have been begun on the railroad station here. This is not what is wanted. In the first place the depot is not properly situated. It is impossible to drive up to the depot except on one end, and there a team is so near to the track as to be in danger.

Again, the appearance of the station is a disgrace to the village ; no repairs can be made that will alter this sufficiently.

At this station as much business is done as at any station on the line. We can see no reason why (we) do not have a structure that will be suitable.

We still ask that the Commissioners come here and see the station. We can get another petition to this effect if it is necessary.

Respectfully,

EDWARD H. HORTON.

Upon the receipt of the foregoing letter notice for a hearing in the matter was given April 30, 1890, which notice was followed by this telegram :

WINOOSKI, VT., April 29, 1890.

To SAM'L E. PINGREE, *Hartford, Vt.*

We hereby withdraw petition in regard to Winooski station. You need not come. Please notify Governor Smith.

EDWARD H. HORTON.

The depot has since been extensively repaired and thoroughly renovated and the cause of the above complaint thereby removed and the complainants satisfied, as the Board is informed.

PETITION OF BARRE RAILROAD COMPANY.

SUBJECT: REQUEST TO EXTEND RAILROAD ACROSS DEPOT STREET IN
BARRE VILLAGE.

TO THE HON. S. E. PINGREE, T. C. FLETCHER AND E. J. ORMSBEE,
Railroad Commissioners of the State of Vermont.

Your petitioner, the Barre Railroad Company, respectfully shows that in the year 1888 it located its road from near the north line of the village of Barre, in the County of Washington, to the granite quarries in the southerly part of said town, and constructed most of it ;

That there was a short portion of the line through said village which was not completed, and while the petitioner was constructing its line of railroad aforesaid, and after the same was located and each end built, the Legislature of the State of Vermont passed Act No. 21 of the Session Laws of 1888 ;

That at the time of the passage of said act the rails of the petitioner's road had not been laid across what is claimed to be Depot street in said village, and the Central Vermont Railroad Company, the Montpelier & White River Railroad Company and one L. F. Aldrich

of Barre, object to the rails being laid across what is claimed to be Depot street, without the leave of the Railroad Commissioners of Vermont.

Your petitioner, (while protesting that it has the right to lay its track on its location,) respectfully asks your honors to examine the premises, hear all parties that desire to be heard on notice, and to adjudge that it is necessary for your petitioner to connect the two ends of its road across what is claimed to be Depot street aforesaid, on its location, and that an order be made in the premises.

Dated this 19th day of April, A.D. 1889.

BARRE RAILROAD COMPANY,
By its Attorney, S. C. Shurtleff.

This petition was duly referred to the defendant companies which made answer at length, denying the necessity of the crossing asked for by the petitioners, and setting forth the feasibility of an under or over-grade crossing, and of a crossing at another point with less inconvenience to themselves and less danger to the public.

The following orders are deemed sufficient to show the further action of the Board therein:—

IN BOARD OF RAILROAD COMMISSIONERS.

MONTPELIER, June 11, 1889.

In the Matter of the Petition of C. M. Winch and others, Selectmen of the town of Barre, and E. L. Smith and others, Board of Bailiffs of the village of Barre, and petition of Geo. C. Mackie and others, citizens of Barre, heard this day in connection with the petition of the Barre Railroad Company vs. the Montpelier & White River Railroad Company, the Central Vermont Railroad Company and L. F. Aldrich.

It is ordered that the matters presented and heard therein, except so far as the same have been determined and announced in the case of the petition of the Barre Railroad Company vs. the Montpelier & White River Railroad Company and others, aforesaid, remain with the Board for such action and order therein restricting and regulating said crossing as shall hereafter appear to be required for the proper protection and safety of the public.

By the Board,

ALFRED E. WATSON, *Clerk.*

IN BOARD OF RAILROAD COMMISSIONERS.

MONTPELIER, June 11, 1889.

In the Matter of the Petition of the Barre Railroad Company against the Montpelier & White River Railroad Company, the Central Vermont Railroad Company, and L. F. Aldrich of Barre, praying for a permit to cross Depot street in the village of Barre, Vermont.

Upon appearance of parties, hearing had and due consideration of the case in Board, the Board decides in accordance with the following memorandum :—

MEMORANDUM OF DECISION.

The Board of Railroad Commissioners adjudges it necessary, within the intent and meaning of Act No. 21 of the Laws of 1888, that the Barre Railroad Company should cross the public highway called Depot street, in Barre village, as contemplated by the location, survey and plan of said railroad, as presented to said Board at the hearing upon petition for that purpose, this day. Said plan is marked "A." "R. R. Com."

By the Board,

ALFRED E. WATSON, Clerk.

IN BOARD OF RAILROAD COMMISSIONERS.

BURLINGTON, June 15, 1889.

In the Matter of the Petition of G. M. Winch and others, Selectmen of the town of Barre, and E. L. Smith and others, Board of Bailiffs of the village of Barre, and petition of Geo. C. Mackie and others, citizens of Barre, heard in connection with the petition of the Barre Railroad Company against the Montpelier & White River Railroad Company, the Central Vermont Railroad Company, and L. F. Aldrich of Barre.

HEARING AT BARRE, JUNE 10 AND 11, 1889.

S. C. Shurtleff, Esq., appeared for the petitioners and the Barre Railroad Company, and B. F. Fifield, Esq., appeared for the Central Vermont Railroad Company, operating the Montpelier & White River Railroad, and L. F. Aldrich of Barre.

The petition first above named was dated May 10, 1889, and the second April 27, 1889, and both were filed with the Board, without objection, at the date of hearing.

The premises were examined by the Board and testimony was introduced, from which examination and testimony it appeared that

the track of the Barre Railroad Company would cross Depot street about three rods easterly from the passenger depot of said Montpelier & White River Railroad Company, and that said passenger depot is situate at the foot of said street and at the westerly terminus thereof, and near the southerly terminus of the Barre branch of the Montpelier & White River Railroad.

It also appeared that said Depot street is a much travelled thoroughfare, leading from Main street to the said depot and grounds and various stone sheds and yards lying westerly of said railroad, and serves for a thoroughfare for many workmen and teams going to and from the same.

It further appeared that there are dwelling houses and other buildings along the sides of this street throughout its entire length, and close to the margins of the same, which tend to obstruct the view of trains as they will pass back and forth upon said Barre Railroad across this street.

It also appeared that the road-bed of the said Barre Railroad is very narrow, and is in very close proximity to many buildings for a considerable distance along its lines, both to the north and south of said street.

And at said hearing it was claimed, on the part of the Montpelier & White River Railroad Company, that the close proximity of said crossing to its said depot and grounds and the proposed location of the passenger depot of the said Barre Railroad Company made it desirable, if, in fact, not necessary, that the Board should consider and make recommendation to the end that the said Barre Railroad Company shall not, in the operation of its said road, about, at or upon said street, and in the location of its proposed depots or station houses obstruct, or hinder free and uninterrupted travel to and from its said depot or grounds. And in answer to said claim, it was conceded that the said crossing ought to be protected by reasonable and proper safe-guards for the security and protection of the public, through orders or recommendations of the Board.

Therefore,—upon a full consideration, the situation of the premises and of the testimony regarding the same, the Board makes to said Barre Railroad Company the following recommendation :—

That it, the said Barre Railroad Company, so locate its passenger depot and other buildings, and so operate and run its engines, cars and trains at and in the immediate vicinity of said street as not to obstruct in any way or to any extent, unnecessarily, free and uninterrupted

travel by the public to and from the depot and grounds of the said Montpelier & White River Railroad Company.

By the Board,

ALFRED E. WATSON, *Clerk.*

COMPLAINT OF L. G. TRUMBULL.

SUBJECT: INSUFFICIENT FENCES AND CATTLE-GUARDS.

HARTFORD, VT., April 23, 1889.

HON. SAMUEL E. PINGREE, *Chairman Board of Railroad Commissioners.*

Dear Sir:—I wish to make complaint of the railroad fences through my farm, and next the highway near me, on the line of the Central Vermont Railroad.

Also, the cattle-guard and fences at my farm crossing. The cattle-guard has been filled up and fences removed, so I have been unable to use the crossing for driving my cattle over for the past four years.

* * * * *

As I have to drive my cattle on the highway, night and morning to and from pasture during part of the summer, it puts me to a great deal of unnecessary trouble, and if you can give me any relief, by compelling the railroad company to fulfil their just obligations, you will very much oblige.

Yours respectfully,

L. G. TRUMBULL.

This complaint was referred to the railroad company and the following reply was received:—

CENTRAL VERMONT RAILROAD.

2ND VICE-PRESIDENT'S OFFICE.

ST. ALBANS, VT., May 8, 1889.

ALFRED E. WATSON, ESQ., *Clerk, Hartford, Vt.*

Dear Sir,—Referring to yours of May 2d, regarding complaint of Mr. L. G. Trumbull of Hartford.

I beg to enclose with this copy of letter just received from Mr. Bean, our Roadmaster. Trusting his explanation will be satisfactory, believe me,

Very truly yours,

E. C. SMITH, *Vice-President.*

Enclosure:

WHITE RIVER JUNCTION, VT., May 7, 1889.

E. C. SMITH, Esq.

Dear Sir,—In reply to yours of the 3d inst. and the enclosed complaint from L. G. Trumbull will say, * * * * we are prepared and had the material all loaded to rebuild and repair the fences on our line as fast as we can get to it with our men.

Will attend to this matter at once.

Yours truly,

A. C. BEAN, *Roadmaster*.

This answer and letter of Roadmaster Bean being referred to complainant, he replied as follows:—

HARTFORD, May 13, 1889.

ALFRED E. WATSON, Esq., *Clerk, Hartford, Vt.*

Dear Sir:—In reply to yours of May 11th, I am willing to await the action of the railroad company. They have already sent their men on to the ground, and are repairing their fences. If they complete them, and replace the cattle-guard I shall be satisfied. In the meantime I should like to have my complaint held for further action if necessary. * * *

Respectfully yours,

L. G. TRUMBULL.

Whereupon the cause was suspended for further consideration, if necessary.

Later,—Sept. 9, 1889, the matter was revived by the following letter:—

HARTFORD, Sept. 9, 1889.

MR. A. E. WATSON, *Clerk, Board of Railroad Commissioners*.

Dear Sir:—I think I shall be compelled to take some further action in regard to my complaint of April 23, 1889.

As the railroad company promptly set their men to work rebuilding the fences, I was willing to let the matter rest, but after waiting four months, the work is not completed, and now when I wish to use my land I am debarred from doing so.

Respectfully yours,

L. G. TRUMBULL.

Which was referred to the railroad company, which reference and an interview with one of the officials of the company led to the following letter:—

STATE OF VERMONT.

BOARD OF RAILROAD COMMISSIONERS.

HARTFORD, Oct. 3, 1889.

MR. L. G. TRUMBULL, *Hartford, Vermont.*

Dear Sir:—In the matter of your complaint dated April 23rd, 1889, which was suspended and again called up September 7th ultimo.

Mr. James M. Foss, General Superintendent of the Central Vermont Railroad, having stated at a meeting of this Board at Montpelier, yesterday, that the fences along your farm have been built, and that orders had been given for cattle-guards to be put in at your farm crossings where there were none, the first of this week, I beg to inquire if the grounds for your complaint have been removed so that the same may be indorsed as satisfied?

Yours very respectfully,

ALFRED E. WATSON, *Clerk.*

In answer to which this letter was received:—

HARTFORD, Oct. 4, 1889.

MR. ALFRED E. WATSON, *Clerk.*

Dear Sir:—In reply to yours of the 3d, I must say I am very much surprised at the statement made by Mr. J. M. Foss, as he cannot know what he was talking about.

The fence on one side of the railroad for about half the distance through my farm has not been rebuilt, and there is none there now.

Also, between the railroad and town road as far as Mr. L. G. Lyman's house. I want the fence repaired, as it is a very difficult matter to drive any cattle along the road and keep them off the railroad.

When the fence is replaced through my farm I want it put on the line, as the railroad employes have been encroaching on my rights for some time, and I think I may as well have it stopped.

Now while writing, I wish to ask, is it going to be necessary for me to apply to the Railroad Commissioners, every time the railroad fences need repairing, as it seems evident they do not intend to keep them up unless forced to do so?

Respectfully yours,

L. G. TRUMBULL.

The foregoing being referred it elicited the following reply:—

CENTRAL VERMONT RAILROAD.

2ND VICE-PRESIDENT'S OFFICE.

ST. ALBANS, VT., Nov. 2, 1889.

ALFRED E. WATSON, ESQ., *Clerk, Hartford, Vt.*

My dear Sir:—Yours of first referring to the complaint of Mr. L. G. Trumbull of Hartford, is received.

I don't know what Mr. Trumbull wants. If I am correctly informed in regard to this matter we have already done for Mr. Trumbull three times what we have done for any one man living on the line of our road so far as fences are concerned. I am informed that we have built over half a mile of fence in the best manner we possibly could for him. If, therefore, his statement is correct, I am very erroneously informed. I have, therefore, asked Mr. Foss to go there and see Mr. Trumbull in person, and would feel obliged if you or one of the Commissioners would go with him and see Mr. Trumbull in person and find out what the man is driving at. There seems to be so wide a difference between his letter of the 4th, and Mr. Foss's statement of the facts to me, that I see no other way of getting at the truth.

Very truly yours,

E. C. SMITH, *Vice-President.*

General Superintendent Foss went to Hartford to make examination of the premises as proposed, and in the absence of Commissioner Pingree, Clerk Watson accompanied him in making such examination and inquiry. Later, the premises were examined and the matter further inquired into by Commissioner Pingree, to whom it seemed that the matters complained of had been reasonably remedied, since which no further complaint has been made in the premises.

PETITION OF THE GRAND TRUNK RAILWAY COMPANY.

SUBJECT: MILEAGE BOOKS.

The following report is deemed to be a sufficient statement of this case :—

MONTPELIER, Oct. 2, 1889.

In the Matter of the Petition of the Grand Trunk Railway Company for exemption from the operation of the provisions of Act No. 42 of the session laws of 1888.

The petition in this case was received and filed April 26, 1889, and by it the Grand Trunk Railway Company of Canada requests that it be exempted from the provisions of the "Act of the General Assembly of Vermont, entitled an Act establishing a uniform rate for mileage tickets, approved Nov. 28, 1888, pursuant to the third section thereof," and in said petition assigned the following reasons for desiring such relief :—

"1. Because the terms upon which said mileage books are now issued are believed to be just and reasonable."

"2. Because to enforce the Act aforesaid against this company will require the adoption of different regulations and mile books for the Vermont stations on its railroad, than those in force elsewhere, causing confusion among agents and conductors and tending to mistakes and annoyances with passengers."

"3. Because the condition requiring exchange of coupons for tickets at stations, enables conductors to give closer attention to the running of their trains and to the care and safety of the passengers. In many cases valuable time would be lost, if conductors were obliged to calculate distances, and take off coupons on trains, as required by the Act aforesaid."

"4. Because the company's present method affords better protection to itself, against dishonest practices by passengers, and the company's employes."

"5. Because the company will be obliged to issue a new and distinct form of mileage book for the Vermont stations only, which will prove of little or no benefit to passengers. Very few or none will care to invest \$25 for mileage books, good for so short a distance only."

"6. Because the rate of \$25 for 1,000 miles now charged for mileage books covering this company's whole line and branches, is very low compared with the rate for ordinary trip tickets in Vermont and elsewhere."

A hearing was had upon this petition at Island Pond, upon due notice to said railway company, and also to representative citizens residing in the vicinity that would be affected by, or would, at least, have an interest in the subject matter of the petition. Said hearing was held on the 26th day of June, 1889, and the Board was attended by Hon. Ossian Ray and Hon. Geo. N. Dale, counsel for petitioners; and by Hon. Z. M. Mansur and D. S. Storrs, Esq., attorneys, and Hon. S. D. Hobson and other citizens in opposition to the granting of the prayer of the petition. And a full and exhaustive hearing was had in the premises.

Upon full consideration of the evidence, and the arguments of attorneys and counsel, the Board concludes and finds as follows:

1. That the provisions of said Act which the petitioner seeks to be exempted from, are just, reasonable and wholesome, and impose no serious burden or inconvenience upon the petitioner.

2. Should the petitioner adopt the course suggested in objection 5, and such course should prove to be legal compliance with the provisions of said Act, the Vermont patrons of said railway would doubtless be inconvenienced thereby, and would fail to be benefitted by the Act in question, to the extent anticipated, if to any extent; but in the opinion of the Board there is too much uncertainty in reference to the adoption of the course suggested, and the consequences of such adoption too conjectural, to afford sufficient ground for granting the request of the petitioner.

The prayer of the petition is denied.

By the Board,

ALFRED E. WATSON, *Clerk*.

PETITION OF CITIZENS OF RYEGATE.

SUBJECT: GRADE CROSSINGS.

RYEGATE, VT., June 5, 1889.

To the Railroad Commissioners of the State of Vermont:

We, the undersigned, do enter our protest and complaint against the two last crossings in the town of Ryegate on the Passumpsic River Railroad going south, or the two first crossings north of Wells River on the river road, and earnestly hope you will investigate the matter.

These crossings are blind crossings and we believe are dangerous to life as there have been a number of cases where people have come very (near)? being run over.

We especially protest against the lower one as the road-bed has continually been raised since the road was built and is now a number of feet higher than it was formerly. There has just been a new side track put in on said crossing which makes it more dangerous and worse getting over than before. At this particular crossing freight trains stand and hinder travel.

What we wish is either an under-ground crossing or road changed to west side of railroad.

J. R. LOW,
ROBERT NELSON,
A. J. MILLIS,
GEORGE A. MILLIS,
M. H. GIBSON.

This complaint was referred to the railroad company and by it was answered as follows:—

BOSTON AND MAINE RAILROAD.
LOWELL SYSTEM. PASSUMPSIC DIVISION.
SUPERINTENDENT'S OFFICE.

LYNDONVILLE, VT., June 12, 1889.

ALFRED E. WATSON, ESQ., *Clerk Board Railroad Commissioners,*
Hartford, Vt.

Dear Sir:—Yours of 8th inst., enclosing copy of complaint from the people in Ryegate, touching two crossings in that town.

These crossings, on account of approaches to the railroad, are what can fairly be termed "blind crossings," consequently more or less dangerous, but not more so than many others. The lower crossing, to which special objection is made, and chiefly because of a siding having been extended so as to have the highway cross two tracks at that point instead of one, is certainly better graded and with less rise to go over tracks than heretofore, and the extension of the siding was made necessary by change of tracks incident to preparing for occupation and use of new depot at Wells River station. It is impossible to prevent freight trains occasionally standing on this crossing, but it should not be for a longer time than the limit as given by statute, and if that time is exceeded I shall regard it as a favor to be notified.

Obviously the dangerous features existing here could be removed by either under-ground crossings or changing the highway to west side, but we cannot admit that the company are bound to make such

changes solely at their expense, yet would favorably entertain plans for such change upon basis of expense being fairly divided between towns of Ryegate and Newbury and the railroad company.

If agreeable to the Board, would suggest that the ground there be looked over at the time of your annual inspection, now so near at hand.

Yours truly,

H. E. FOLSOM, *Sup't.*

Whereupon the Board, upon its annual inspection trip of 1889, having notified the parties in interest, met them on the 24th day of June and examined the premises, and afterwards, upon further due notice to all parties, including land owners, heard the cause, and made the following report therein :—

Complaint of J. R. Low and others against the Connecticut and Passumpsic Rivers Railroad Company. Dangerous Highway Crossings.

The petitioners complain and protest against the two most southerly crossings in the town of Ryegate, on said railroad, as blind and dangerous to the public, and also more inconvenient for the public travel than formerly by reason of the steeper grade of the highway caused by the raising of the railroad track and the extending of a siding along it and over the highway; and they ask that an underground crossing be ordered by the Board, or that the highway be changed to the west side of the railroad track.

The premises were examined by the Board while on the duty of its annual inspection of railroads, and a hearing upon the petition was determined upon and appointed to be had at the office of Smith & Sloane, at Wells River, in Newbury, July 31, 1889.

Notice of the hearing was duly given to the Boston and Maine Railroad Corporation, operating the said Connecticut and Passumpsic Rivers Railroad, the Connecticut and Passumpsic Rivers Railroad Company, the petitioners aforesaid, the selectmen of said town of Ryegate and Mrs. A. B. W. White, the owner of the land adjoining said crossings, and, at said time and place, all of said parties appeared, the premises were reviewed and a hearing upon said petition was had.

It appeared thereupon that there are two highway grade crossings at this place, some twenty rods apart,—the main road from Wells River to Ryegate and beyond crossing over the railroad to the easterly side and returning again to the westerly side a short distance above.

These crossings are both dangerous, the first being of steep grade on both sides of the railroad, and approaching trains are concealed from view until the traveler is nearly upon the track.

It is the opinion of the Board that the public safety requires this highway to be altered by changing the same to the west side of the railroad as prayed for by the petitioners, thus doing away with both of said grade crossings.

Accordingly, the Board orders said alteration to be made, and directs that the same be made by the town of Ryegate, and according to the location, survey and direction for construction hereinafter specified. And the Board determines and directs that the expense of making such alterations be apportioned between said town of Ryegate and said railroad corporation as follows, viz: Two-fifth parts of said expense shall be borne by the said town of Ryegate, and three-fifths of it by the said railroad company; and that the said alteration be made and completed on or before the 15th day of November next; and that as soon as the same is so made the highway across the said railroad at both of said grade crossings and all that part now between them be discontinued and the new road made along the westerly side be declared open for the public travel.

And the Board adjudges to the said Mrs. A. B. W. White, the owner of the fee of the land over which said new road is laid, the sum of \$30.00 for her damage on account of the location of the same, said sum to be paid to her by said town of Ryegate before commencing the construction of said highway. And said Connecticut and Passumpsic Rivers Railroad Company, and said Boston and Maine Railroad Corporation, by H. E. Folsom, their Superintendent and Agent, waived all claim for damages by reason of the laying of said highway along and over their survey, location and corporate franchise.

The location, survey and construction of said highway shall be as follows:

Beginning in the centre of the travelled path of the present highway, at a point 15 feet westerly of the westerly rail of the siding at said southerly crossing,—thence northerly to the corner of the fence running along the westerly side of said railroad,—thence northerly along said fence to the said highway at said second crossing and to a point in the center of the travelled track of said highway in continuation line of said fence. Said highway to be three rods wide and said courses to be the easterly line of the survey thereof. And the travelled path of said highway shall be so constructed that its east-

erly line shall not be less, at any point, than 15 feet distant from the westerly rail of said railroad and siding as now laid.

And the same shall be so graded that the face of the travelled track shall not be more than six feet above the track grade of said railroad, at any point; and the said travelled track shall be not less than 12 feet in width, and the easterly margin thereof shall be protected by a substantial guard or barrier of not less than four feet in height from the face of the same.

By the Board,

ALFRED E. WATSON, *Clerk.*

The recommendations above made were seasonably complied with to the satisfaction of the Board.

NOTE.—The Board understands that the legal course to be pursued for the taking of lands for the public use in the change of highways under Act No. 21, Laws of 1888, relating to railroad crossings, is the same as heretofore existed under the statute. Mrs. White, however, assented to the less expensive method recommended in this case and accepted the appraisal made by the Board.

COMPLAINT OF HENRY A. WINSHIP

SUBJECT: FREIGHT RATES ON COAL, BURLINGTON TO BRADFORD.

This complaint was duly referred to the railroad companies to be affected by it, and a voluminous correspondence ensued by and through the Board upon this interesting subject, the result of which was to disclose that the complaint was made under a misapprehension of facts and a withdrawal of the complaint of Mr. Winship.

In the opinion of the Board, the public would not be suberved by a publication of this extended correspondence, which would cover from ten to fifteen pages of this report, and which is on file.

A COMPLAINT OF THOMAS C. KEYES OF NEWBURY

on the same subject, and involving the same railroad companies, was referred, inquired into and disposed of, in and by the correspondence above referred to, whereby such reduction of rates complained of was secured as to make unnecessary any other or further examination or hearing.

COMPLAINT AND PETITION OF CITIZENS OF ISLAND POND.

SUBJECT : GRADE HIGHWAY CROSSING.

To the Hon. Board of Railroad Commissioners for the State of Vermont.

We, the undersigned, freeholders of the village of Island Pond and State of Vermont, would respectfully represent that the railroad crossings in said village across the Grand Trunk Railway tracks are exceedingly dangerous, and are unprovided with gates, electric signals, or flagmen; and we would respectfully request your Hon. Board to order the Grand Trunk Railway Company to furnish the relief provided by Act No. 26 of the Laws of Vermont passed in 1888, entitled, "An Act relating to grade crossings and flagmen.

J. M. BARTLETT, and others.

This complaint and petition was referred to the railway company, and in due time answer was made thereto and hearings had therein, which resulted in the issuing of the following order :—

MONTPELIER, Feb. 10, 1890.

In the Matter of the Complaint and petition of citizens of Island Pond, complaining of the dangerous character of the highway grade crossing over the tracks of the Grand Trunk Railway Company in Island Pond village, and asking that gates, electric signals, or a flagman be ordered placed and kept thereat, pursuant to the provisions of Act No. 26 of the laws of 1888 :

Upon due notice to the petitioners and said railway company, the Board met for a hearing upon said petition, at Island Pond, Nov. 5, 1889. D. S. Storrs, Esq., and Col. Z. M. Mansur appeared for the petitioners, and Henry Heywood, Esq., appeared for Hon. Ossian Ray, the attorney for the railway company. An examination of the crossing in question was made by the Board at this time.

The case of the petitioners was presented by Mr. Storrs, and an adjournment was asked by Mr. Heywood for the railway company on the ground of the unavoidable absence of Mr. Ray and for other causes stated, which appearing to be sufficient, and no objection being made by the petitioners, the hearing was continued to January 7, 1890, at which time the hearing was further continued for cause shown, and on account of the absence by sickness of one of the Commissioners and the desire of a hearing by the full Board, in view of

the importance of the case, to January 16th following. It was again continued by correspondence to Feb. 6, 1890, when a hearing was had at length, Mr. Ray and ex-Gov. George N. Dale appearing for the railway company, and Col. Mansur for the petitioners present.

A statement of remonstrance against the placing of gates or a flag-man at said crossing, signed by many citizens of said village, was presented to the Board by George Fitzgerald, one of the signers, in which suggestions for remedying or diminishing existing dangers at said crossing are made, and the same was received and considered by the Board, no objection being made for want of notice or otherwise by either party to the original petition, in connection with its examination of the premises, and the testimony heard.

At the conclusion of the testimony, a verbal proposition was submitted to the Board, setting forth what the railway company would do for the better protection and safety of the public in the premises, and for the greater certainty of the effect and value of the action so proposed in insuring the safety of the public travel, the Board and parties re-examined the crossing, its approaches and obstructions, and the proposition of the railway company,—after certain amendments and changes suggested by Col. Mansur for the petitioners and by the Board, was reduced to writing and is as follows:

1. West of the present crossing the wood pile is to be removed as soon as may be.
2. No cars are to be left standing nearer the present crossing than a line running across the tracks at right angles with the lower end of the baggage room. And southerly of the station, no cars are to be left standing nearer the crossing than the lower end of the brick station.
3. On the easterly side of the present crossing no cars are to be left standing nearer than a line at right angles with the 148 mile post.
4. In the spring, when the ground is thawed, the bunter post on one of the tracks is to be moved down on a line with the 148 mile post.
5. The exterior lines are to be marked by suitable posts to be set in the ground when the ground thaws out in the spring, and no cars are to be left standing within this space.
6. No train or locomotive shall be moved across this crossing at a speed greater than four miles an hour, and the company is to issue a strict and peremptory order to its engineers to this effect.
7. Locomotives shall not be attached to the passenger trains leav-

ing Island Pond station, going east, until they are ready to start as near as may be.

This proposition was accepted by the petitioners as satisfactory to them, provided the terms and provisions thereof be carried out by the railway company, and the same, if complied with, appearing to the Board to be reasonable, and that it will afford the public, under the circumstances and conditions of the highway travel at this point, reasonably safe protection from avoidable accidents, the Board, therefore, orders that the said proposition be accepted and adopted and made the order of the Board in the case.

By the Board,

ALFRED E. WATSON, *Clerk*.

Later, the following letter was received :

GRAND TRUNK RAILWAY COMPANY OF CANADA.
GENERAL MANAGER'S OFFICE.

MONTREAL, Feb. 27, 1890.

*Dear Sir :—*I beg to acknowledge the receipt of your letter of the 10th inst., informing me of the arrangement under which the Board of Commissioners desire that the public crossing at Island Pond be guarded, for the protection of the public, and to reply that the same shall have the desired attention, that instructions have already been given for the removal, as soon as practicable, of the obstructions referred to, and for the observance of the speed recommended.

Yours truly,

J. HICKSON, *General Manager*.

A. E. WATSON, Esq., *Clerk*,

Board of Railroad Commissioners, Hartford, Vt.

The Board understands that the terms and provisions of the above order have been complied with.

PETITION OF ST. JOHNSBURY AND LAKE CHAMPLAIN
RAILROAD COMPANY.

SUBJECT: CHANGE IN HIGHWAY CROSSINGS.

To S. E. PINGREE, T. C. FLETCHER, and E. J. ORMSBEE, *Railroad Commissioners of the State of Vermont*.

Your petitioner, the St. Johnsbury and Lake Champlain Railroad Company, respectfully shows that there is a highway crossing at grade

just west of the depot in Fletcher which is unsafe for travel, and that it can be greatly improved by a change in the highway and crossing.

Also, that there is a long and high bridge or trestle on its road in the town of Danville, known as the Pumpkin Hill Trestle, which it is desirable to have discontinued and a fill made to take its place ; that there is a highway that passes under the railroad at this point ; and if such change of construction is made, said highway will have to be changed on each side and the crossing made at a different point, either at grade or under grade; and that it is desirable to have such changes in the railroad and highway made for the public convenience and safety.

Your petitioner therefore asks, in view of the premises, that you will examine such proposed changes, and on reasonable notice to the selectmen of the respective towns, make such orders in reference to such changes as shall be best, and also make such order in reference to the expenses of such alterations as shall be equitable.

Dated this 8th day of July, A. D., 1889.

ST. JOHNSBURY AND LAKE CHAMPLAIN RAILROAD COMPANY,

By its Attorney, S. C. Shurtleff.

Soon after the receipt of this petition the Board met the selectmen of the town of Fletcher and other parties in interest, by appointment, at the crossing in question in said town of Fletcher, and further examination and hearing followed, which resulted in the issuing of the following order:—

MONTPELIER, Feb. 15, 1890.

In the Matter of the Petition of the St. Johnsbury and Lake Champlain Railroad Company, requesting a change in the highway crossing at grade near its depot in the town of Fletcher.

The Board met the petitioners and the Selectmen of said town of Fletcher, and the owners of the lands through which the highway would pass, if changed, after due notice given, on the 12th day of November, 1889, examined the premises and became informed of the facts bearing upon the case, and finds, that the said highway crossing is unsafe for public travel upon the same and that it can be improved in that respect by changing the same to a point farther west, or separating it from its present combination with the railroad crossing over Black brook, both the highway and railroad crossing over the same stream now being upon the same bridge, and crossing each

other diagonally. The Board also finds, that neither an under nor an over grade crossing is practicable at this place. A comparatively safe and proper approach and crossing at grade can be had as proposed in the map referred to herein, at reasonable cost.

Whereupon the Board orders as follows, viz: That a change be made in said highway and crossing so that the present combination crossing whereby the railroad bridge over Black creek in Fletcher is made to serve also as a highway crossing be avoided in the interest of the public safety. And to that end it is ordered that said highway be altered as follows, viz: Beginning at a post, marked, in the fence near the westerly side of the present highway, about 383 feet northerly of the present crossing, and thence running south, 42 degrees west, 381 feet to the center of the railroad track; thence continuing upon the same bearing 47 feet further to a stick set in the ground; thence south, 18 degrees west, 296 feet to a fence post standing in the southeasterly corner of land of Perry S. Curtis and in the westerly line of the present highway as fenced, said surveyed line forming the westerly line of the highway as altered by the Board. Said highway as altered is to be three rods in width, and the same requires the taking of land of Jonathan Blaisdell about a half an acre, and of the land of said Perry S. Curtis about two square rods.

And it is further ordered that said alteration be made and completed, and the said highway be opened for the public travel on or before the 1st day of August, A. D., 1890, by the said railroad company.

And it appearing and being found by the Board that the aforesaid alteration will, when made, operate to the benefit of said railroad company to such a degree that it should bear the principal expense of making and completing the same, including a necessary and suitable highway bridge over said creek, and the land damages for the location thereof, it is thereupon further ordered, that said railroad company make the aforesaid alterations of said highway and build such bridge, and complete and open the same for public travel as aforesaid, at its own expense, except as hereinafter provided, in conformity with the plan and design submitted to the Board by said company and marked for identification—"Alfred E. Watson, Clerk, November 12, 1889," which is here referred to; and also to do and complete said work to the satisfaction of this Board.

And the Board orders that the said town of Fletcher shall pay to the said railroad the sum of eighty dollars (\$80) as its just share and portion of the expenses aforesaid.

And whereas, by means of the alteration hereby ordered, the railroad bridge so to be built by said railroad company will be outside of the limits of the survey and location of its road, and said company will be relieved from the care and maintenance of the same, unless it be otherwise made to appear; and whereas, it is claimed by said town of Fletcher, through its selectmen, that there is a certain contract or obligation in existence between said company and said town, whereby said town was relieved from all responsibility of expense of maintenance of said bridge where now located; and whereas, said town of Fletcher desires further opportunity to ascertain the facts in relation to such supposed contract or agreement, and to present the proofs thereof to the Board, that the same and its legal effects may be carefully considered.

Therefore, all matters relating thereto are held by the Board for some future hearing and consideration, on due notice to all parties concerned, and for such further order in the premises as to the Board shall appear lawful and just.

By the Board,

ALFRED E. WATSON, *Clerk.*

The Board is informed that the changes and alterations provided by the foregoing report have been made to the satisfaction of all parties concerned.

NOTE.—So much of the petition in the above matter as pertains to change of highway at "Pumpkin Hill" trestle in Danville was duly referred to the parties in interest, and a meeting appointed and held for an examination of the premises and a hearing, at which meeting the matter was adjusted to the satisfaction of the Board by the said railroad company and the town of Danville by its selectmen.

COMPLAINT OF W. O. RAY AGAINST CENTRAL VERMONT RAILROAD COMPANY.

SUBJECT : EXCESSIVE FREIGHT CHARGES.

To the Railroad Commission.

*Gentlemen :—*I wish to call your attention to the fact that we are charged 40 cents per 100 weight on our cheese to Boston, while for the same class of goods is only charged 22 cents from Poultney via Rutland to Boston. This we claim unjust, and we would ask your Hon. Board to consider the matter, as we claim that we are charged too much or the shippers at Poultney are charged too little.

I enclose Mr. Clark's card, who is the salesman at Hampton, and ships all cheese at Poultney. We make and ship from 120,000 to 130,000 a year.

Very respectfully,

W. O. RAY, Agent.

Upon the foregoing complaint the Board met the officers of the railroad company at St. Albans, June 9, 1890, and, after discussion of the rates complained of, the proposition was made to reduce the tariff on cheese shipped from Orwell and points in that vicinity to Boston, in accordance with the following:—

Special cheese tariff, No, 07, in effect July 19, 1890, to Boston and intermediate points:—

From	Cents per 100 pounds.
Burlington, Vt	40
Shelburne, "	38
Charlotte, "	36
North Ferrisburgh, Vt.....	34
Ferrisburgh, Vt.....	33
Vergennes, "	32
New Haven, "	32
Middlebury, "	31
Salisbury, "	30
Ticonderoga, N. Y.....	38
Orwell, Vt.....	30
Shoreham, "	30
Whiting, "	30
Leicester Junction, Vt.....	30
Brandon, Vt.....	28
Pittsford, "	26
Proctor, "	24

The following correspondence thereupon ensued:

STATE OF VERMONT.

BOARD OF RAILROAD COMMISSIONERS.

HARTFORD, July 21, 1890.

MR. W. O. RAY, *Brandon, Vt.*

Dear Sir:—Referring to your complaint against the Central Vermont Railroad Company in regard to freight rates on cheese shipped

from Orwell to Boston, which has been before the Board for some time, I beg to inquire whether or not the "Special Cheese Tariff No. 07," in effect July 19, 1890, a copy of which has been filed with the Board, and one doubtless sent you, is satisfactory, so that the case may be finally disposed of and record made accordingly?

Yours very respectfully,

ALFRED E. WATSON, *Clerk.*

BRANDON, July 24, 1890.

A. E. WATSON, Esq.

Dear Sir,—Yours of the 21st received. The rate on cheese to Boston, which took effect the 19th, is satisfactory.

We claimed lower rate, but Mr. Chittenden explained matters which seemed reasonable and satisfactory.

Thanking you and others, I remain, etc.,

W. O. RAY.

The foregoing correspondence satisfying the Board that the matters complained of were satisfactorily arranged by the adoption of the "Special Cheese Tariff No. 07," the Board takes no further action in the premises.

COMPLAINT OF REV. S. HENRY ARCHIBALD.

SUBJECT: PASSENGER TRAIN CONNECTIONS AT RUTLAND.

WALLINGFORD, Vt., Aug. 26, 1889.

To the Railroad Commissioners of Vermont.

Messrs.:—I desire to call attention to the lack of connection between trains running over the Bennington and Rutland Railway and the Delaware and Hudson Railroad as shown at Rutland.

There is a train arriving at Rutland over the Bennington and Rutland road at 11:05 A. M.; one leaves over the Delaware and Hudson, via Poultney, at 11 A. M.

Again, there is one arriving over the Delaware and Hudson at 11:10 A. M., and one leaving over the Bennington and Rutland at the same minute. It is not an unusual matter for the train over the Bennington and Rutland to leave, and that on the Delaware and Hudson to run in, before the former train is out of sight.

Believing that this is not such accommodation as the traveling public is entitled to, your attention is respectfully invited to the matter.

Truly yours,

S. HENRY ARCHIBALD.

This complaint was referred to the two railroad companies, Sept. 7, 1889, and the following correspondence in reference to the matter ensued:

DELAWARE AND HUDSON CANAL COMPANY.

NORTHERN RAILROAD DEPARTMENT.

OFFICE OF THE SUPERINTENDENT.

ALBANY, N. Y., Sept. 11, 1889.

ALFRED E. WATSON, Esq., *Clerk, Board Railroad Commissioners, Hartford, Conn. (Vt.)*

Dear Sir,—I have your favor of 7th inst. enclosing copy of complaint from S. Henry Archibald. Replying I can only say that we have never made a time-table without consulting the schedule of the Bennington and Rutland Railroad and arranging connections whenever practicable. They have frequently changed their time soon after our schedules have taken effect. I know of no reason why connections should not be made whenever practicable, and would be glad to do so.

Yours truly,

C. D. HAMMOND, *Supt.*

BENNINGTON AND RUTLAND RAILWAY COMPANY.

E. D. BENNETT. Superintendent.

BENNINGTON, VT., Oct. 5, 1889.

A. E. WATSON, *Clerk, Board Railroad Commissioners.*

Dear Sir:—Pertaining to the complaint of the Rev. S. Henry Archibald of Wallingford alleging lack of proper train connections at Rutland between this company and the Delaware and Hudson Canal Company, permit me to say, first, our train arriving in Rutland at 11:05 A. M. is a through train from Troy and is now run as fast as safety will warrant. To arrive earlier at Rutland, would necessitate an earlier leaving from White Creek, which we cannot control as trains are run to that point by a connecting line. I should be very glad to have the Delaware and Hudson Company hold their train until we arrive and make the connection.

Again, our train leaving at 11:10 A. M. is a through connection, St. Albans to New York. We form a link in the chain and are scheduled accordingly. I will endeavor to get the necessary changes made in the through schedule to permit of our leaving Rutland a little later. Or if the Delaware and Hudson could arrive five minutes earlier the connection would be secured.

Until some change is effected I have directed that our train wait 10 minutes when passengers are likely to get left.

Very respectfully,

E. D. BENNETT, *Supt.*

STATE OF VERMONT.

BOARD OF RAILROAD COMMISSIONERS.

HARTFORD, Nov. 2, 1889.

MR. C. D. HAMMOND, *Superintendent Northern Railroad Department, Delaware and Hudson Canal Company, Albany, N. Y.*

Dear Sir :—Referring to your favor of September 11th last, touching complaint of S. Henry Archibald, I am directed to enclose to you copy of letter received from Col. E. D. Bennett, Supt. Bennington and Rutland Railway, in answer to said complaint; and to advise you, that the Board is satisfied from the representations of the complaint and the two railroad companies complained of,—that it is entirely “practicable” for the said two railroad companies to make such schedules for the running of trains that the traveling public may be properly accommodated in the matter of connections, at Rutland, whereas it appears that heretofore they have not been adequately provided for.

You are, therefore, respectfully requested to take such action in the premises as will insure such a result, and advise the Board of such action when taken.

Yours very respectfully,

ALFRED E. WATSON, *Clerk.*

A similar letter was sent to Col. E. D. Bennett, Supt. Bennington and Rutland Railway Company, enclosing letter of Supt. Hammond to the Board, dated Sept. 11, 1889.

DELAWARE AND HUDSON CANAL COMPANY.

OFFICE OF THE SUPERINTENDENT.

ALBANY, N. Y., Nov. 6, 1889.

ALFRED E. WATSON, Esq., *Secretary, Board of Railroad Commissioners, State of Vermont.*

Dear Sir :—I am in receipt of your favor of the 2d inst., enclosing copy of letter from Mr. E. D. Bennett, Superintendent of Bennington and Rutland railroad. To make the first connection referred to by Mr. Bennett, that of 11:05 A. M., would necessitate our leaving Rutland 45 minutes later than at present, which is not only impracticable but impossible for us to do, and make a more important connection, that of the New York Central and Hudson River Railroad at Troy for New York. Our train due to arrive in Rutland at 11:10, A. M., is also a through connection from Troy by way of Salem and Castleton, depending upon the Fitchburg Railroad connection at Eagle Bridge.

If you will take the trouble to note the running time of this train from Eagle Bridge to Rutland, including the large number of stops, I think you will agree with me that we cannot with safety schedule this train any faster than at present.

Yours truly,

C. D. HAMMOND, *Supt.*

BENNINGTON AND RUTLAND RAILWAY COMPANY.

E. D. BENNETT, Superintendent.

BENNINGTON, Vt., Nov. 25, 1889.

ALFRED E. WATSON, Esq., *Clerk, Board Railroad Commissioners.*

My Dear Sir :—I have your favor of the 2nd enclosing copy of letter from C. D. Hammond, Superintendent Delaware and Hudson Canal company, in the matter of complaint by S. Henry Archibald.

Permit me to say, the fact that the Delaware and Hudson Company put on a train leaving Rutland at 11:00 A. M. while our train was scheduled to arrive at 11:05 A. M., is good evidence that a close examination of our table was made.

I do not claim to have consulted their time table, and for two reasons,—first that I have never been favored with a copy of their issue unless I bought it in a guide book —although I have always sent them a copy of mine when issued,—secondly, because I did not suppose there was a sufficient amount of traffic affected to warrant a change which would work unfavorably to a larger number.

A contemplated change early next month will enable me to schedule our 11:10 A. M. train out of Rutland at 11:17, making a margin of 7 minutes, which I trust will be sufficient, but at the same time I shall be obliged to run my morning train now arriving at 11:05 A. M., in at 11:15, which I think is the time at which they leave, making a close connection for them to get. I shall be very glad to do all I can to make the connections satisfactory, but cannot do it all.

Yours,

E. D. BENNETT, *Sup't.*

STATE OF VERMONT.

BOARD OF RAILROAD COMMISSIONERS.

HARTFORD, Jan. 1, 1890.

MR. C. D. HAMMOND, *Supt., Northern Railroad Department, Delaware and Hudson Canal Company, Albany, N. Y.*

Dear Sir:—In the matter of the complaint of S. Henry Archibald, referred to in your letter of September 11th, 1889.

I am directed by the Board to call your attention to the enclosed copy of letter from Col. E. D. Bennett, Superintendent of the Bennington and Rutland Railway Company, of date of November 25, 1889, and to say there would seem to be a want of harmony of action between the two railroads that would best serve the traveling public and to express the hope that this may be only a seeming want of harmony and that in any event the public shall not be incommoded thereby.

By direction of the Board,

ALFRED E. WATSON, *Clerk.*

ALBANY, N. Y., Jan. 6, 1890.

ALFRED E. WATSON, *Secretary of Board of Railroad Commissioners, Hartford, Vi.*

Dear Sir:—I am in receipt of your favor of date January 1, enclosing copy of communication from Supt. Bennett of the Bennington & Rutland Railroad. In reply I beg to say that so far as the Delaware & Hudson Canal Co. is concerned we are not only disposed but anxious to live and do business in harmony with all of our neighbors. I cannot refrain, however, from saying a few words in connection with some of the statements made by Col. Bennett. I do not know whether in the second clause of his letter the statement that we put our train out of Rutland at 11 o'clock is an error or whether the entire paragraph is intended as sarcasm; in any event I venture to

say that our train has not been changed so as to leave Rutland at 11 o'clock since June 24, 1888, which seems rather like ancient history to bring up in connection with this matter. On the 29th of September last, we changed our time of leaving Rutland at 11 o'clock to 11.15, for no other purpose than to make connection with the Bennington & Rutland train arriving at 11.05, which still remains on the schedule at that hour. The first reason which Mr. Bennet gives for not consulting our time table strikes me as being rather "miniature" as he must have known that we would be glad to furnish him with a copy of our time table and place his name on the list for regular exchange by simply calling our attention to the fact that it was not already there. The second reason, however, I believe to be a good one and the supposition which he mentions well founded. My observation of this matter leads me to believe that there is not sufficient amount of this business to warrant any great outlay of expense to accommodate it.

There is one practical point in connection with this whole subject which, I have no doubt, is met by Mr. Bennett as well as by ourselves in making up our schedule. When it becomes necessary on both roads, as in this case, to arrive and leave at about the same time, the fact that the terminal station is approached from both directions by a single track renders it at times impossible to make passing places for our trains and both arrive and leave at exactly such time as we would be glad to do.

Yours truly,

C. D. HAMMOND, *Supt.*

The above letters from the railroad companies to the Board were referred by copy to the complainant. Later the Board ascertained from verbal inquiry that the Rutland leaving time of the Bennington & Rutland Railway train was so changed as to remedy the inconvenience complained of.

COMPLAINT OF SELECTMEN OF NEWPORT.

SUBJECT: DEFECTIVE HIGHWAY GRADE CROSSINGS IN NEWPORT.

On August 31, 1889, the selectmen of the town of Newport presented a complaint to the Board in which it was alleged that three certain highway crossings over the Canadian Pacific Railway Com-

pany's road were dangerous and in several respects defective and in need of repair, and requesting—in effect—that the attention of said railway company be called to the matter, and that the needed repairs be made at once by said company. On the 7th day of September, 1889, said complaint was referred to said railway company by the Board and its attention thereto requested, and said company was also requested to make answer thereto at an early day in order that the Board might determine what action, if any, it would take in the premises.

On September 11 following the company made answer through its General Superintendent saying, that the crossings named in the complaint would be put in proper condition without delay, and later, October 7, 1889, said company informed the Board by letter of that date, "that the repairs to the crossings named in the complaint are being made and all the defects mentioned therein will be remedied as soon as possible and the crossings made safe and convenient for the public travel."

These communications from the company were referred to the complainants who were notified that, in view of the assurances given by said company that the crossings complained of would be put in proper condition, without delay, the complaint would be suspended to await results.

The attention of the Board has not been further called to the matter of this complaint.

COMPLAINT OF CITIZENS OF ESSEX.

SUBJECT: HOG CAR NUISANCE.

ESSEX JUNCTION, VT., Sept. 3, 1889.

To the Honorable Railroad Commissioners of the State of Vermont.

We the undersigned citizens of the town of Essex and freeholders in said town do respectfully petition you to remove the nuisance of hog cars that are left near our dwelling houses on the railroad running from the Central Vermont line to J. K. Drury & Son's brick yard, said cars being left standing there from day to day, causing a stench that is unbearable in our dwellings and endangers our health.

O. R. CLARK.

and 11 others.

This complaint was duly referred to the railroad company

and the following correspondence ensued by which the matter was disposed of:

CENTRAL VERMONT RAILROAD.

2ND VICE-PRESIDENT'S OFFICE.

ST. ALBANS, VT., Sep. 13, 1889.

ALFRED E. WATSON, Esq., *Clerk, Hartford, Vt.*

Dear Sir:—Yours of the 10th, enclosing petition of citizens of Essex in regard to the inconvenience caused by hog cars standing on Drury & Co.'s side track. I have instructed Mr. Foss not to use this track for the hog trains, and he has ordered the practice discontinued.

Trusting this will be satisfactory all round, I am,

Very truly yours,

E. C. SMITH, *Vice-President.*

STATE OF VERMONT.

BOARD OF RAILROAD COMMISSIONERS.

HARTFORD, Sept. 16, 1889.

MR. O. R. CLARK AND OTHERS, *Essex Junction, Vt.*

Gentlemen:—Referring to your complaint against the Central Vermont Railroad Company, of date the 3d inst., I beg to submit to you herewith copy of answer of Col. E. C. Smith, Vice-President of said company. In view of the prompt action taken by the company, through the official named, to remedy the matter complained of, it appears that there is no need for the Board to take further action in the premises, and your complaint will be suspended, subject, however, to renewal, if occasion warrants it.

By direction of the Board,

ALFRED E. WATSON, *Clerk.*

UNDERHILL, VT., Oct. 8, 1889.

ALFRED E. WATSON.

Dear Sir:—Some time ago I sent petition of citizens of Essex Junction in regard to hog cars being set on Drury's Railroad and received a letter from you with letter from E. C. Smith, stating he had abated the nuisance. And they have commenced setting them in again. I wish you would put a stop to it if you have an investigation. Please notify me so I can meet you there as I am stopping here for the present.

It is an unbearable nuisance.

Yours truly,

O. R. CLARK.

STATE OF VERMONT.

BOARD OF RAILROAD COMMISSIONERS.

HARTFORD, Nov. 1, 1889.

COL. E. CURTIS SMITH, *2nd Vice-President, Central Vermont Railroad Company, St. Albans, Vt.*

Dear Sir:—Referring to complaint of citizens of Essex Junction, which was suspended upon the assurances given in your letter dated September 13th ultimo, I beg to enclose to you herewith copy of a letter recently received from Mr. O. R. Clark, one of the complainants.

Will you please advise the Board at an early day, whether or not your order in the premises as stated in your said letter has been and will hereafter be duly respected so as to remove the grounds of said complaint?

By direction of the Board,

ALFRED E. WATSON, *Clerk.*

CENTRAL VERMONT RAILROAD.

2ND VICE-PRESIDENT'S OFFICE.

ST. ALBANS, VT., Nov. 2, 1889.

ALFRED E. WATSON, ESQ., *Clerk, Hartford, Vt.*

Dear Sir:—Yours of the 1st, enclosing letter from Mr. O. R. Clark in regard to setting the hog cars on the Drury siding at Essex Junction.

The orders were given precisely as I have stated. If there has been any departure from this order it was owing to the most urgent necessity. You are in a position to know what it is to run a railroad with the air full of cars, and it may be possible that at times we are so blocked with freight at Essex Junction that it becomes absolutely necessary to use that track for a while. I feel confident Mr. Williams, the agent there, has used it for storing the hog cars only when it was absolutely necessary so to do, and then only to prevent an utter blockade of our tracks. We *must* get our passenger trains over the line, and we must do all we can to keep our freight moving, and if in so doing we are compelled to use the side track I trust the complainants will exercise a moderate degree of patience until we can get a little relief.

Very truly yours,

E. C. SMITH, *Vice-President.*

STATE OF VERMONT.

BOARD OF RAILROAD COMMISSIONERS.

HARTFORD, Nov. 4, 1889.

To Mr. O. R. CLARK, *Underhill, Vt.*

Dear Sir:—Referring further to complaint of citizens of Essex Junction regarding the nuisance created by hog cars left standing on Drury & Co.'s side track, I beg to enclose herewith copy of another letter from Vice-President Smith for your perusal and views.

Yours very respectfully,

ALFRED E. WATSON, *Clerk.*

COMPLAINT OF CITIZENS OF MIDDLEBURY.

SUBJECT: SUNDAY TRAIN DISTURBANCE.

MONTPELIER, April 2, 1890.

In the Matter of the Complaint and petition of Albert Chapman and others of Middlebury against the Central Vermont Railroad Company.

This complaint and petition was heard by the Board, upon due notice, Nov. 20, 1889, at Middlebury.

The petition alleges that the track of the Rutland Division of the Central Vermont Railroad Co. runs so near churches in the village of Middlebury that the passing of trains during the hours of church services on the Sabbath greatly disturbs and interrupts the devotions of the congregations in all of the churches of said village; and also represents that the evil of these Sunday trains has largely increased during the past few months, especially during the hours of church service, until the same has become so grievous a hindrance to church service and work that the petitioners are moved to invoke relief from the same, at least, during the customary hours of church services, which are from 10 A. M. to 2 P. M., and from 7 to 9 o'clock in the evening.

The petitioners comprise the clergymen and church officers of the various churches of said village.

At the hearing, the railroad was represented by its president and other officials and counsel, and the petitioners by the Hon. Albert Chapman and others. State's Attorney Charles M. Wilds was also present, and the hearing was largely attended by interested citizens.

No question was made at the hearing upon the facts alleged in the

petition, and the inconvenience and disturbance to the devotions of the church service in the several congregations by the passing of trains during hours of service were treated as conceded as alleged in the complaint.

It appeared that the standing order of the road, on all its divisions, forbids the running of any freight trains, except those carrying live stock and perishable property, between the hours of 6 A. M. Sunday, and 1 A. M. on Monday.

It was urged on the part of the company that these live stock trains have to be run in fulfilment of contracts a portion of the way from the West, on Sunday, as the live stock must be delivered from the western shipping point to Boston in a stated number of hours,—85, and that the empty cars must be returned at once in order that the rolling stock and motive power be not accumulated at one end of the line ;

That these trains are delivered to the Central Vermont Railroad Company at any time upon telegraphic notice, and that they must be sent forward promptly, or feeding points must be established at various points on the line,—as the live stock cannot be kept on the cars over 28 hours without feeding,—which, it was claimed, would, in the unloading, feeding and reloading of the hogs,—from 5000 to 7000 head,—cause a greater disturbance of the Sabbath than to pass them forward. It was also claimed that it was a work of necessity, that these trains of stock be run on Sunday and that no law of the State is violated thereby.

It was also claimed by C. M. Wilds, Esq., as a citizen, that the Board may have authority under section 10 of Act No. 23 of the Laws of 1886,—the Act constituting the Board, to make recommendation in the premises, and such recommendation, looking to the relief of the petitioners from the annoyance complained of in the petition, was advocated by Mr. Wilds in behalf of the complainants.

The section referred to is as follows, viz:—

“Whenever in the judgment of said Railroad Commissioners, after investigation and hearing upon reasonable notice to all persons interested, it shall appear that repairs are necessary upon any railroad within this State, or that any addition to the rolling stock, or addition to or change in the stations or station houses, should be afforded, or whenever in the judgment of said Board, after examination and hearing, it shall appear that any change in the rates of fare for transporting freight or passengers, or that any change in the manner of operating the road and conducting its business is reasonable and expedient, in order to promote the security, convenience and accommodation of the public, or to prevent violations of law, or unjust discriminations, usurpations, or extortions, said Board, after

giving notice of its recommendations as aforesaid, may fix a time within which the same shall be made, which time the Board may extend. It shall be the duty of the corporation, person or persons owning or operating said railroad, to comply with such recommendations of said Board as are just and reasonable."

"The Supreme Court sitting as a court of equity shall have power in all cases of recommendations by said Board to compel compliance therewith, if in the judgment of the said Supreme Court, upon hearing and legal proof, such recommendations are just and reasonable."

It is upon this claim of authority in the Board to recommend a "change in the manner of operating the road and conducting its business in order to promote the security, convenience and accommodation of the public" that the only question arises which requires deliberation and careful analysis of the statutes by the Board.

Act No. 18 of the Laws of 1888, is as follows, viz:

"Section 1.—The Board of Railroad Commissioners may authorize the running, upon any railroad of such through trains on Sunday, as, in the opinion of the Board, the public necessity and convenience may require, having regard to the due observance of the day."

Under which act the authority of the Board has not been granted or invoked for the running of Sunday trains by any railroad.

The running of stock trains and others transporting perishable goods upon trunk lines of our State and others has been practiced for many years to a limited extent.

The statute last recited was enacted at the last session of the Legislature. Hence all trains which have been run on Sunday have been run under the claim that the service was such as was warrantable as work of "necessity or charity," or their running could not have been claimed as legal.

The statute under which "work of necessity and charity" is permitted, on the Lord's Day, is as follows, viz:

"Section 4315.—A person who between 12 o'clock Saturday night and sunset on the following Sunday exercises any business or employment except such only as works of necessity and charity, or is present at any public assembly except such as is held for social and religious worship and moral instruction, or travels, except from necessity and charity, or visits from house to house except from motives of humanity or charity, or for moral or religious edification, or holds or resorts to any ball or dance, or uses or exercises any game sport or play, or resorts to any tavern, inn, or house of entertainment for amusement or recreation, shall be fined not more than two dollars."

This statute has been in force substantially as now, upwards of one hundred years.

If the running of these stock trains on Sunday is legal it is because the same is a work of necessity or charity, within the exceptions

contained in the law last mentioned. If such running is not legal it is because it is neither a work of necessity nor charity.

The Board finds that it is not its province, nor has it authority, to determine the question whether the running of trains is "work of necessity or charity," but such question can be taken cognizance of only by the law Courts, upon the institution of proceedings for the recovery of the prescribed penalty, and the respondent may have the right of trial by jury, who alone may determine the issue both of law and fact.

The power to settle such questions belongs solely to the established Courts of the State, and cannot be taken from them and be placed in the determination of a commission. The organic law would forbid it.

The authority conferred upon the Board to *authorize* the running of certain Sunday trains when required by "public necessity and convenience" does not give it any power by way of recommendation or order to *prevent* the running of such trains.

This Board, then, has no power, as the law now stands, to prohibit the running of trains on the Lord's Day, unless such power may be found in the 10th section of the Act constituting the Commission first above quoted.

If the remedy sought by the petitioners can be lawfully attained through the Board, recommendation may be made to that end, and in case of non-compliance therewith by the corporation, the Supreme Court in its equity character may compel compliance on the part of the railroad company, if in its judgment, upon hearing and legal proof such recommendation of the Board is just and reasonable.

The facts found, upon which the Board must construe its authority under this section of the Act, are as follows:

These stock trains, through business arrangements between the shippers from Chicago and the railroads over which they run, are loaded and forwarded from that city every day in the week except Sundays.

Their lines of travel lay in Illinois, Indiana, Michigan, the Provinces, Vermont, New Hampshire and Massachusetts, or on other routes through other States to Boston or New York.

It is an unquestioned mercy to these animals, that they be confined on the cars in transit to the shambles the briefest period possible. The time of their passage through this State is limited to about seven hours and after leaving this State, at Bellows Falls, the time is considerably less to get them to their destination. They are fed at Montréal before reaching our State, as the time from St. Albans to Boston is considerably less than a day.

Those trains leaving Chicago on Thursday or Friday must be received by business arrangement with some eastern railroad line on Sunday, if they are kept moving forward as the nature of this kind of traffic would seem to require from the established usage in most of the States since this business began its large and constantly increasing development.

If the sending of these trains forward through this State has ever been a work of "necessity or charity" within the intent and spirit of the exception in the ancient statute in relation to Sabbath breaking, it is quite as much a work of "necessity and charity" in the present enlarged volume of such traffic.

The Board notes that the petition in the case does not go to the extent of asking that the discontinuance of these Sunday stock trains be recommended by it, but the petition seeks relief from the increased disturbance and annoyance which the manner and time of running the same, during the hours of church service, causes them.

The section last referred to confers recommendatory powers upon the Board specifically in the matters relating to necessary repairs, increasing the rolling stock, changes in depots and the tariff rates, and generally in whatever relates to the "manner of operating the road and conducting its business in order to promote the *security, convenience and accommodation* of the public, etc."

Both the specific and general scope of this section were evidently intended by the legislative authority to have relation mainly to such security, convenience and accommodation as the public, as travelers or shippers of commodities, patrons of the road, have the right reasonably to exact of the railroad as carriers.

* But, if any needless disturbances and annoyances are imposed upon communities, congregations of people or individuals, while in the pursuit and exercise of their proper duties, which can be obviated by any regulation which is just and reasonable and which is within the equity powers of the Courts of the State to determine, the Board considers that such recommendation on its part as may bring the question to the consideration of the Court is within its jurisdiction and is its duty to make.

The matter becomes one of the *manner* of exercising a legal right on the part of the company, as between it and the public also in the exercise of its legal rights.

It becomes a correlative right, and should be so regulated as reasonably to convene the interests of both under the relative conditions in which they both stand. The right of the one should be so

enjoyed as to leave the exercise of the right of the other tolerable, if it can be done by reasonable regulation and care under the circumstances.

It would not be contended by any one that the Commission may not recommend the reasonable moderation of the speed of railway trains over their tracks through densely populated cities and villages for the better security of the life and limbs of street travelers, or even for the purpose of protecting the lives of trespassers from the results of their own carelessness. Nor would it be questioned that it is within the province of the Board to make reasonable recommendations regulating the unnecessary and indiscriminate use of the locomotive steam whistles, to the frightening of horses and the annoyance and injury of the sick in compact villages and neighborhoods, on the ground that the same may be an inexcusable annoyance to the public and an infringement upon their rights.

And if the running of trains past churches can be so conducted as to relieve or diminish the annoyance and disturbance complained of, without serious interference with the other and correlative rights of the corporation, the Board deems it properly within its authority, under said section, and within the general scope of the act constituting the Board, to make reasonable recommendation to that end.

Owing to the frequent misconception on the part of the public of the authority conferred upon the Board by the statute of 1886, and of its jurisdiction under the old law relating to the observance of the Sabbath, as well as under the act already referred to, authorizing the Board to permit in its discretion the running of certain Sunday trains, the Board has deemed it advisable to state its views of its jurisdiction and limitations upon such points as might be conceived by some to be incidentally raised upon the petition in this case, as as well as to pass upon the point directly presented therein.

It was stated by the president of the company at the hearing, that the directors conceded and appreciated the annoyance and disturbance which would be caused by the passing of these trains and returning cars, at speed, during the hours of church service, and assurance was given that, in so far as it was in the power of the company to obviate it, the same should be done.

Directly after the adjournment of the session of the Board, the following order was published for the guidance of the employes operating these trains, viz:—

CENTRAL VERMONT RAILROAD.

PRESIDENT'S OFFICE.

ST. ALBANS, Nov. 21, 1889.

(Circular.)

Complaint having been made by the citizens of Middlebury, that the church service is seriously disturbed by the passing of the live stock trains through that village on the Sabbath day,—

It is therefore ordered that all south bound live stock trains over the Rutland Division of this road, in passing through the village of Middlebury, during the hours of divine worship on the Sabbath day, viz., between the hours of 10 A. M. and 1 P. M., and between the hours of 7 P. M. and 9 P. M., will run their trains at a speed not exceeding four miles per hour, and will refrain from blowing their whistle for the highway crossing between the present station and the bridge over Otter Creek; the bell must be rung for said crossing, according to the statute.

North bound trains will be so regulated as to their hours of passing through the said village of Middlebury on the Sabbath day, as to avoid passing the churches during the hours of worship, viz., between the hours of 10 A. M. and 1 P. M., and between the hours of 7 P. M. and 9 P. M., and will, in passing through that village, do so as quietly and in as orderly a manner as possible.

Engineers will avoid taking water at Middlebury, except in cases of necessity, but will, as far as may be practicable, take water at Vergennes, and Leicester Junction or Brandon.

These orders must be carefully and strictly obeyed.

J. GREGORY SMITH, *President*.

Compliance with this regulation on the part of the employes of the railroad company appears to the Board to promise adequate relief to the petitioners from the disturbance complained of, so far as could be attained through such reasonable recommendations in the premises as in its judgment the Supreme Court would sustain, and the Board is advised that this regulation has been substantially complied with since its publication.

Therefore, no recommendation of the Board under this petition is deemed necessary while the established regulation of the company shall continue to afford the substantial relief sought.

By the Board,

ALFRED E. WATSON, *Clerk*.

COMPLAINT AND PETITION OF CITIZENS OF MONTPELIER.

SUBJECT: DANGEROUS HIGHWAY GRADE CROSSINGS.

MONTPELIER, VT., Sept. 21, 1889.

To the Hon. Board of Railroad Commissioners.

We, the undersigned, would submit to you that in our opinion the several grade crossings of the Central Vermont and Montpelier &

Wells River Railroads in this town are unsafe to the traveling public, and would beg that you cause gates, flagmen or electric signals to be placed at the several grade crossings in this village.

E. P. JOHNSON, and 70 others.

In the opinion of the Board, the facts and circumstances attending the presentation of the complaint and petition, the answer thereto by the railroad companies, are sufficiently set forth in the report of the Board, which follows:—

Complaint of citizens of Montpelier against Central Vermont Railroad Company and Montpelier and Wells River Railroad Company.

MONTPELIER, Oct. 23, 1889.

The complaint of E. P. Johnson and 70 other citizens of the village of Montpelier sets forth that the several highway grade crossings over the Central Vermont and Montpelier & Wells River Railroads in said village are unsafe to the traveling public, and asks that the Board cause gates, flagmen or electric signals to be placed upon the same.

Upon due notice to said railroad companies and to the petitioners, a hearing upon the complaint and request was had at Montpelier, at the above named date, the Central Vermont Railroad Company being represented by its president, ex-Gov. J. Gregory Smith, and its general superintendent, James M. Foss. F. W. Morse, general freight and passenger agent, and S. C. Shurtleff, a director of the Montpelier & Wells River Railroad Company, were also present, and E. P. Johnson and several others of the complainants were present on behalf of the complainants.

This complaint is predicated upon Act No 26 of Laws of 1888, entitled, "An Act relating to grade crossings and flagmen," and is the first complaint the Board has heard under said Act.

The Board visited the premises, accompanied by the parties above named. There are several highway crossings over railroads, at grade, within the limits of Montpelier village, but the complainants designated the Main street and Taylor street crossings as the only ones intended to be embraced in the complaint.

The Main street crossing is upon a much traveled thoroughfare, from the business center of the village, to Berlin and on to

Barre; and this travel is rapidly increasing by reason of the development of the granite working industry in this vicinity.

The main tracks of both railroads are crossed here by the highway and there are besides three side tracks. Upon both of these main lines 34 trains pass regularly every day, and much shifting is done upon the sidings across this crossing. The through tracks of these railroads, which run nearly parallel, east and west, at this point, are about ninety feet apart, and the distance across the tracks and sidings is upwards of 150 feet. The covered bridge across the Winooski river is only about 54 feet south of the Montpelier & Wells River Railroad, and after this bridge is crossed the view from this direction, as in passing from the village southerly, also, is obstructed by the passenger and freight depots and other buildings so as to render this an exceedingly blind and dangerous crossing.

The railroad officials present conceded this, and also expressed the judgment that some method should be devised to diminish the liability to accidents here.

Although the Board is unable to learn that any fatal or even serious accident has ever happened at this crossing, notwithstanding its exceedingly dangerous characteristics and the large amount of team and other travel over it at all hours of the day, for many years, yet it regards this as one of the class that the statute named was intended to protect by one of the devices asked for by the complainant. This act was passed pursuant to recommendation of the Board in its first biennial report to the General Assembly, in the interest of the public safety.

The broad space covered by the tracks here, the frequency of the trains, though not usually passing at speed, and the much shifting upon the sidings add largely to the dangerous character of the crossing.

Gates are deemed to be generally the most adequate protection to the public safety at these crossings, but, with the width of the surface to be guarded here, and the obstructions to the view of the gateman at his post, wherever that might be, if only one gateman should be ordered here for both railroads, it appears to the Board that the public can be better protected by a competent flagman, properly located and moving diligently for the best points of observation for approaching trains on all these tracks, than by the gate or the uncertain device of electric signals.

And the Board, therefore, for the present, orders that the Central Vermont Railroad Company and the Montpelier & Wells River Railroad

Company place and keep a flagman upon the Main street crossing of their railroads in said village, at all times when their trains are passing through said village and their cars are moving across or upon said street, upon their tracks and sidings.

The testimony at the hearing does not, in the opinion of the Board, warrant an order at this time for stationing a flagman, gate or electric signal at the crossing on Taylor street, and, therefore, the request therefor is denied.

By the Board,

ALFRED E. WATSON, *Clerk.*

COMPLAINT AND PETITION OF CITIZENS OF BRATTLEBORO.

SUBJECT: OBSTRUCTION OF HIGHWAY CROSSING.

BRATTLEBORO, Sept. 27, 1889.

TO SAM'L E. PINGREE, TRUMAN C. FLETCHER AND EBENEZER J. ORMSBEE, *Railroad Commissioners of the State of Vermont.*

The undersigned, citizens of Brattleboro, respectfully represent that trains of freight cars in charge of the Central Vermont Railroad Company and of the Vermont Valley Railroad Company are *daily* left standing across the main highway in this village leading to the railroad depot and to Hinsdale bridge, spanning Connecticut river,—(said highway being one of the most important in the village)—for periods varying from 5 to 20 minutes, while freight is unloaded and switching is done, greatly to the obstruction of business and the inconvenience and danger of persons desiring to pass to and fro on said highway.

We therefore respectfully petition your honorable body to take such action in the premises as may result in abating the nuisance complained of.

Very respectfully submitted,

JACOB ESTEY,
B. D. HARRIS,
and 50 others.

This complaint and petition having been received was referred by copy to the railroad companies interested, whereupon the following correspondence ensued by which the matter was disposed of:—

VERMONT VALLEY AND SULLIVAN COUNTY RAILROADS.

SPRINGFIELD, MASS., Oct. 14, 1889.

ALFRED E. WATSON, *Clerk, Vermont Board of Railroad Commissioners, Hartford, Vt.*

Dear Sir :—Replying to your letter of October 3, enclosing a copy of a complaint made by citizens of Brattleboro in regard to railroad trains being left standing on the main highway crossing at that place.

In behalf of the Vermont Valley Railroad Company, I beg to state that the trains of that company are not left standing on this crossing over a reasonable time.

The business of the Brattleboro station is entirely under the control and management of the New London Northern Railroad Company, the Vermont Valley Railroad Company paying a yearly rental for station accommodations, but do their own switching of their freight trains.

The enclosed is a copy of a circular sent to all of our trainmen at date shown on circular, and I do not think that our trains have made unnecessary stops on this crossing.

Yours truly,

J. MULLIGAN, *Sup't.*

CENTRAL VERMONT RAILROAD.

2ND VICE-PRESIDENT'S OFFICE.

ST. ALBANS, VT., Oct. 15, 1889.

ALFRED E. WATSON, Esq., *Clerk, Hartford, Vt.*

Dear Sir :—Reply to your favor of October 3 has been delayed owing to my absence. I merely write now to say that I have taken the matter up, and in a few days will be able to write you in regard to it.

Truly yours,

E. C. SMITH, *Vice-Prest.*

CENTRAL VERMONT RAILROAD.

2ND VICE-PRESIDENT'S OFFICE.

ST. ALBANS, VT., October 28, 1889.

ALFRED E. WATSON, Esq., *Clerk, Hartford Vermont.*

Dear Sir :—Referring to your favor of the 3rd October in regard to complaint and petition of the citizens of Brattleboro in respect to the highway crossing at Brattleboro village, reply to which has been delayed owing to the absence of Mr. Brooks, our Division Superinten-

dent at Brattleboro. I now enclose you copy of Mr. Brooks' letter. You will observe from his letter that both this Co. and the Vermont Valley Co. fully appreciate the disadvantages of the crossing, and had previous to the complaint taken measures to improve the service at that point as much as possible under the circumstances. I trust the explanation and statements made by Mr. Brooks will satisfy the people of Brattleboro, and assure them that we will do everything possible to relieve the situation so far as the circumstances will permit.

Truly yours,

Enclosure.

E. C. SMITH, *Vice-Pres't.*

BRATTLEBORO, VT., October 24, 1889.

COL. E. C. SMITH, *Vice-Pres't, St. Albans, Vt.*

Dear Sir :—I have been absent since October 5th, on a vacation, and returned last night and find enclosed correspondence here. In answer to same, would say this complaint is in regard to the crossing near the passenger station. This is a bad crossing and must of necessity be blocked at times for few minutes and it is impossible to keep it clear at all times. I think what started this complaint was it being held at one time at about 5 P. M. by train which came from Vermont Valley road and was taken by our engine, drawn down in our yard and one car had five trotting horses to unload, and train was undoubtedly held on crossing longer than it should have been, and when I found it out I instructed train men to not allow this crossing to be blocked again, any such length of time, but to have crossing opened in such cases. Trains arriving here from the south with 40, 50 or 60 cars have to draw over this crossing in order to set trains off, and must of necessity block this crossing more or less all through the day, but we do not intend to keep it blocked any more than is necessary in order to do the business. I have talked with Mr. Goodwin, Assistant Superintendent of Vermont Valley Railroad, and he said he should instruct his train men to use all possible means to keep the crossing clear as possible and do the work. I shall endeavor to do the same and think we can accomplish what is desired. Of course, it is a bad crossing at best.

Yours truly,

E. F. BROOKS, *Agent.*

STATE OF VERMONT.

BOARD OF RAILROAD COMMISSIONERS.

HARTFORD, Oct. 30, 1889.

HON. B. D. HARRIS, *Brattleboro, Vt.*

Dear Sir:—Referring to the complaint and petition of yourself and other citizens of Brattleboro, dated the 24th ultimo, I beg to submit herewith copies of letters received from the railroad companies complained of, in answer thereto.

Will you please examine the said enclosures and advise the Board whether or not, in view of the representations and assurances therein made, you desire a formal hearing in the premises?

Yours very respectfully,

ALFRED E. WATSON, *Clerk.*

BRATTLEBORO, VT., Nov. 9, 1889.

ALFRED E. WATSON, Esq., *Clerk, Railroad Commission.*

Dear Sir:—I beg to acknowledge the receipt of your favor of the 30th ult., enclosing responses from the Central Vermont and the Vermont Valley Railroads to the complaint of petition touching their obstruction of the highway near the railroad station in this village. While these responses do not meet the case, and contain no promises to respect either the law or public safety or convenience in the future,—only that they will do as well as they can under the circumstances,—in point of fact, there has been a marked improvement since their attention was officially called to the evil complained of, and, if this improvement continues, there will be no disposition to press the matter to a hearing at present.

Thanking the Commission for their prompt attention to the complaint, I am,

Very truly your obedient servant,

B. D. HARRIS.

COMPLAINT OF LOWELL G. LYMAN.

SUBJECT: INSUFFICIENT FENCES AND CATTLE-GUARDS.

HARTFORD, VT., Nov. 26, 1889.

MR. PINGREE.

Dear Sir:—I do hereby enter complaint against the Central Vermont Railroad for not having lawful fence beside the track against my farm, and also on the main road; and also two cattle-guards put

in at my crossing so I can drive our cattle to pasture and not get any more of them killed. I have had one killed and have not received any pay.

I wrote Mr. Bean a letter and he pays no attention to it. I have sent word to him by his bosses and I don't see no fence (or) any signs.

They come along and put fences up at my crossing and without any guards on it makes it worse than it was before.

L. G. LYMAN.

This complaint was referred to the railroad company in the usual manner and no action of the Board was taken therein except as set forth in the following correspondence:—

CENTRAL VERMONT RAILROAD.

2ND VICE-PRESIDENT'S OFFICE.

ST. ALBANS, VT., Jan. 23, 1890.

ALFRED E. WATSON, Esq., *Clerk, Hartford, Vt.*

Dear Sir:—Referring to your two favors of the 2nd inst. enclosing complaints from Mr. L. G. Trumbull and L. G. Lyman, I beg to enclose herewith a copy of letter from our General Superintendent, Mr. J. M. Foss, explaining the situation fully, and which, I trust, will be entirely satisfactory to your Hon. Board.

Very truly yours,

E. C. SMITH, *Vice-President.*

Enclosure :

January 16, 1890.

E. C. SMITH, Esq. V. P., *St. Albans, Vt.*

Dear Sir:—In regard to the complaint made by Mr. Lyman, I understand from Mr. Bean that there is need of some fencing along the track against Mr. Lyman's farm, on account of a portion of the old fence being blown down this fall, and was intending to rebuild it in the spring, or as soon as it thawed out, which will probably be in time to protect Mr. Lyman. Will also at the same time put in his cattle-guards which he complains of in season for him to turn out his cattle. Hoping this will be satisfactory, I am,

Very truly yours,

J. M. FOSS, *General Supt.*

STATE OF VERMONT.

BOARD OF RAILROAD COMMISSIONERS.

HARTFORD, Jan. 30, 1890.

MR. LOWELL G. LYMAN, *Hartford, Vermont.*

Dear Sir:—Please find herewith enclosed copy of the answer of the Central Vermont Railroad Company to your complaint of date Nov. 28th last, alleging a neglect on the part of said railroad company properly to maintain fences and cattle-guards as specified by you.

In view of the representations made in said answer and the present condition of the ground, will it not be entirely satisfactory to you if the railroad company carries out its design in the premises as early next spring as is practicable?

Awaiting your early reply,

Yours very respectfully,

ALFRED E. WATSON, *Clerk.*

HARTFORD, Jan. 31, 1890.

MR. WATSON.

Dear Sir:—If they do it early in the spring it will do, but as to Mr. Bean's statement about being blowed down this last fall, it has been blowed down every hard wind we've had for the last 3 or 4 years, and some of it has been burned up some two years or more.

L. G. LYMAN.

The Board is assured that the grievances upon which the complaint was based have been removed.

COMPLAINT OF L. G. TRUMBULL.

SUBJECT: INSUFFICIENT FARM CROSSING.

HARTFORD, Dec. 14, 1889.

HON. S. E. PINGREE, *Chairman, Board Railroad Commissioners.*

Dear Sir:—I wish to enter complaint in regard to the way my crossing on the Central Vermont Railroad is maintained.

To-day the planks have been removed and old fence boards substituted, leaving the rails nearly two inches higher.

Last winter the same thing was done, and every time I crossed I was in danger of breaking my sled, and once was nearly stuck on the rails with a load on.

I wish also to protest against two other crossings,—open to the public,—fixed in the same way, and which I have occasion to cross

at various times during the winter. The ones I refer to, are one on road leading to Mr. C. Hutchinson's house, and one on the road crossing the river at Centerville.

I have protested against my crossing being removed, and as I wish to use it in a day or two, I wish some immediate action could be taken to have it replaced.

Respectfully,

L. G. TRUMBULL.

This complaint was referred to the railroad company, eliciting the following answer:—

CENTRAL VERMONT RAILROAD.

2ND VICE-PRESIDENT'S OFFICE.

ST. ALBANS, VT., Jan. 23, 1890.

ALFRED E. WATSON, Esq., *Clerk, Hartford, Vt.*

Dear Sir:—Referring to your two favors of the 2nd inst., enclosing complaints from Mr. L. G. Trumbull and L. G. Lyman.

I beg to enclose herewith copy of letter from our General Superintendent, Mr. J. M. Foss, explaining the situation fully, and which I trust will be entirely satisfactory to your Hon. Board.

Enclosure :

Very truly yours,

E. C. SMITH, *Vice-President.*

January 16, 1890.

E. C. SMITH, Esq., *V. P. St. Albans, Vt.*

Dear Sir:—Referring to the complaint made to the Railroad Commissioners by Mr. L. G. Trumbull of Hartford, in regard to the maintenance of his farm crossing, would say that what he states is substantially true.

It is the custom to take out the planks from all such crossings, in the early fall or winter, and substitute thin boards in order that we may run our snow plows and scraper cars with as little danger as possible. Otherwise we should be obliged to raise the nose of the snow plows and scraper cars at all farm crossings, which would of course add to the danger, and should be avoided as much as possible.

Where farmers have occasion to use their crossing it is customary to notify the section men, and they accommodate them by filling in with snow, thus enabling them to use the crossings with but very little inconvenience.

The crossing that Mr. Trumbull refers to is in a very bad location.

The road from his buildings down to the track is very steep, and teams coming from his meadow would be liable to have great difficulty unless they had on a very light load.

I do not see how we can practicably make it any better this winter, unless we put in a regular highway crossing, which I would not like to do unless we were forced to it.

Hoping this will be satisfactory, I am,

Very truly yours,

J. M. FOSS, *Gen'l Sup't.*

Which, upon reference to the complainant, was replied to as follows:

HARTFORD, Jan. 30, 1890.

MR. ALFRED E. WATSON, *Clerk.*

Dear Sir:—Your favor of the 29th enclosing answer of Central Vermont Railroad Company to my complaint is duly received.

As that answer acknowledges the justness of my complaint and leaves the crossing in the same condition, I should like a hearing in regard to the matter.

Yours respectfully,

L. G. TRUMBULL.

Whereupon a hearing was ordered by the Board, but, before notice thereof had been given to the parties, the cause of the complaint was removed and the occasion for a hearing was thereby avoided.

PETITION OF SELECTMEN OF RUTLAND.

SUBJECT: UNDERGRADE HIGHWAY CROSSING.

To the Honorable Board of Railroad Commissioners:

The petition of the Selectmen of the town of Rutland represents:

That about one-fourth of a mile northerly from the Center Rutland station, the Rutland Railroad passes over the main highway leading from Rutland village to and beyond West Rutland, by a bridge which was built and is maintained by said Railroad Company.

That said highway is one that said town of Rutland is bound to maintain and keep in repair, and is extensively and continuously traveled by teams and vehicles of all kinds, both loaded and unloaded.

That said railroad bridge is not sufficiently high above said highway to be safe to the traveling public, and frequent accidents and injuries have happened and are liable to happen to the traveling public on account of the lower timbers or stretchers of said bridge being so low and so near to the surface of the traveled highway that teams loaded with merchandise of bulk are not able to pass under said bridge without coming in contact with said lower timbers or stretchers.

That said lower timbers or stretchers of said bridge should be raised at least two feet above where they are at present.

That it is impracticable and unsafe to excavate the highway any lower on account of the nature of the soil and the quicksand under the bed of said highway.

Wherefore, said petitioners, said selectmen of said town of Rutland, pray that the aforesaid matter may be investigated by said Board of Railroad Commissioners, and proper orders made upon said railroad company so as to afford the relief and safety which the case demands.

Said railroad is now operated, as the petitioners are informed, by the Central Vermont Railroad Company, under a lease from said Rutland Railroad Company.

Rutland, Vt., May 1, 1890.

L. G. KINGSLEY,
J. J. BARRETT,
M. L. THOMAS,
H. O. EDSON,
E. M. WOODRUFF,

Selectmen of Rutland.

BY EDWARD DANA, *Attorney.*

This matter was duly considered by the Board, and the conclusion arrived at that it is not within its jurisdiction.

In the opinion of the Board, the legal remedy of the petitioners is found in Section 3389 of the Revised Laws, of which the petitioners were notified.

PETITION OF THE ST. JOHNSBURY AND LAKE CHAMPLAIN RAILROAD COMPANY.

SUBJECT: HIGHWAY GRADE CROSSINGS.

TO THE HON. S. E. PINGREE, T. C. FLETCHER AND E. J. ORMSBEE,
Railroad Commissioners of the State of Vermont.

Your petitioner, the St. Johnsbury and Lake Champlain Railroad Company, respectfully represents, that the business of its railroad at

Hardwick requires a branch railroad extending from Smith's crossing, so-called, to the Buffalo road, so-called, to accommodate the granite industry; that it has acquired the right of way by deed; that in the construction of said branch railroad it will be necessary to cross the highway once or twice at grade; that the route has been surveyed, plans made, and the route in every respect is ready for the inspection of the Railroad Commissioners.

Your petitioner, therefore, asks for leave to cross the highway at grade on said route.

Dated the 16th day of June, A. D. 1890.

ST. JOHNSBURY AND LAKE CHAMPLAIN RAILROAD COMPANY.
By its Att'y, S. C. SHURTLEFF.

Upon the foregoing petition Commissioners Ormsbee and Fletcher examined the premises, while upon inspection duty, June 18, 1890, and the following waiver, in writing, of the Board of Selectmen of the town of Hardwick and their consent to said proposed crossings was received July 28, 1890:—

“Whereas, it is understood that the St. Johnsbury and Lake Champlain Railroad Company propose to build a branch road from Smith's crossing to the Buffalo road, so-called, in the town of Hardwick, and in so doing, cross two highways in said town;”

“We, the undersigned, selectmen of the town of Hardwick, hereby waive any hearing before the Railroad Commissioners in reference to such crossings, having no objection to the same, *provided* they are made satisfactory to the selectmen of Hardwick, and the public generally.”

“GEO. W. BRIDGMAN,
C. G. MONTGOMERY,
L. H. WARREN,
Selectmen of Hardwick, Vt.”

It appearing to the Board that it is necessary for the construction of said railroad branch that said crossing be made as prayed for, the Board orders and adjudges the same to be necessary.

By the Board,

ALFRED E. WATSON, *Clerk.*

COMPLAINT OF JOHN B. HAY.

SUBJECT: DISCRIMINATION IN PASSENGER FARES.

This complaint being received was duly referred to the railroad company which made answer thereto, which answer was in turn referred to the complainant, who replied to it. A voluminous correspondence was had in this matter, but, in the opinion of the Board, it is only necessary to print the report, which follows:—

IN BOARD OF RAILROAD COMMISSIONERS.

May 22, 1890.

In the Matter of the Complaint of John B. Hay of Bradford, against the Central Vermont Railroad Company.

The subject matter of this complaint was inquired into at a meeting of the Board at White River Junction, on March 13, 1890, upon due notice to the complainant, and to the railroad company: at which time, the Board was attended by the complainant in person and his attorney, and by said railroad company and its attorney, and a full and exhaustive inquiry was made as to the subject matter of the complaint, and questions arising upon the answer of the railroad company.

The complainant, in and by his complaint alleges in substance, that on the 7th day of January, A.D. 1890, he was a passenger on the passenger train of said railroad company from Windsor to White River Junction; that he entered the train at Windsor, and was unprovided with a ticket, "having been unable to procure one": that when called upon by the conductor of the train for his fare, he explained matters to him and offered to pay his fare in money; that upon the demand of the conductor he paid 70 cents, and demanded a draw-back check for 20 cents, which demand was refused by the conductor; and, as part of his complaint, avers, "that said corporation has made a regulation whereby passengers who take passage upon the day trains, and are not provided with a ticket, are charged 15 or 20 cents excess on and above the regular rates of toll, and are not allowed any draw-back check, while passengers who take passage upon a night train, and are not provided with a ticket are charged in excess over and above the regular tolls, but are allowed and given a draw-back check for the excess so charged." And, further avers and charges, that the matters and things by him thus complained of are contrary to the laws of the State; that, in substance, by the enforcement

of said regulation, the railroad company charges a larger sum for passage of passengers for a less distance to, or from a way station, than is charged for a greater distance;—and in the application of said regulation said railroad company violates the statute laws of the State, in that it thereby unjustly discriminates in its charges for transporting passengers, and that thereby such charges are unduly increased.

The train upon which the complainant took passage was a day passenger train, and left Windsor at about 1 o'clock P. M. The complainant entered the train as it was moving out of the station, having failed to provide himself with a ticket, for want of time so to do after concluding to take that particular train, he having previously contemplated going by a later train. No other cause or reason was assigned or claimed by the complainant for his not having purchased a ticket.

By the regulations of the railroad company in that behalf, in such a case a passenger is required to pay full fare without rebate or draw-back check; and this was demanded and required of, and paid by the complainant, although he demanded of the conductor a rebate or draw-back check for the excess paid over the price of ticket if purchased at the office before entering the train. This demand was refused upon the ground that to accede to it, would be a violation of the regulations of the railroad company in that regard. It appeared and the Board finds that the regulation in question bearing upon the subject matter of this complaint was in substance:—That passengers may purchase tickets at the ticket office with a reduction of 15 cents from the schedule rates: that passengers not provided with such tickets are required to pay to the conductor full schedule rates without rebate or draw-back check except that to such passengers on night trains when ticket office is closed, a draw-back check for the 15 cents is given, and also given to passengers taking passage either day or night at stations where ticket office is closed.

The complainant claimed as above stated, that in fact 70 cents instead of 65 cents was demanded of and by him paid to the conductor, while it is insisted on the part of the railroad company that only the regular tariff—65 cents, was demanded by or paid to the conductor, and from the evidence submitted the Board finds that only 65 cents was demanded or paid.

In the opinion of the Board, the merits of the complainant's alleged grievance depends upon the question,—Is said regulation one in kind that the railroad might properly make as to the running of its trains,

and is it of itself reasonable? An examination of authorities reveals a great uniformity in the decisions of the courts of this and other States in the direction of sustaining and approving such and similar regulations on the part of the railroad company, and their enforcement. Say the Court,—*Isham J., Stephen vs. Smith et al*, 29th Vt. 163, (the defendants were running the Vermont and Canada Railroad as trustees.) “The right and duty of the defendants in running that road, to establish and enforce reasonable regulations for the government of the line, has been frequently recognized by the courts of this country. The safety and security of the traveling public, as well as the interest of the railroad itself require that, that right and duty exist and be enforced. The discrimination in form which is made by this company when tickets are purchased at the several stations, or when paid to the conductor in the cars, is reasonable, as affording proper checks upon its accounting officers, and which they have a right to enforce, while the law requires of the company the adoption of such regulations as are necessary for the safety and convenience of passengers in their trains; they have also the right to adopt such reasonable regulations, as are necessary for their own security, and these regulations are to be mutually observed.”

And in the case of *Swan vs. Manchester and Lawrence Railroad*, Mass. Report 132, page 116, Devens, J. in pronouncing the opinion of the court, says:

“The regulation that all passengers, who shall purchase tickets before entering the cars of a railroad company to be transported therein, shall be entitled to a small discount from the advertised rates of fare, but if such ticket is not purchased the full rate of fare shall be charged, is a reasonable one, and in no way violates the rule, which in New Hampshire has the sanction of statute law, that the rates shall be the same for all persons between the same points. The number of persons carried, the rapidity with which the cars move, the frequency and shortness of their stops, the delay and inconvenience of making changes, the various details to be attended to by the conductor while the train is in motion or at the stations, and the importance to the railroad company of conducting its business at fixed places, under the mode of payment by tickets previously purchased, are of advantage to the railroad company and of convenience to the public.”

Applying these principles, which the Board holds to be sound and controlling to the case under consideration, the Board fails to find that the complainant has any just or legal cause of complaint in the

premises. The regulations of the railroad company complained of, the Board finds to be reasonable and their enforcement legal and proper.

The question of the *reasonableness* of the tariff or rate demanded of and paid by the complainant, to wit: 65 cents, from Windsor to White River Junction, is not presented by the petition, and therefore has not been considered.

By the Board,

ALFRED E. WATSON, *Clerk*.

PETITION OF PITTSFORD AND RUTLAND RAILROAD
COMPANY.

SUBJECT: HIGHWAY GRADE CROSSINGS.

RUTLAND, VT., June 27, 1890.

HON. E. J. ORMSBEE.

Dear Sir: I would like, on behalf of the Pittsford and Rutland Railroad Company, to make application to the Board of Railroad Commissioners, for orders, under the Act of 1888, No. 21, relative to the crossings of River, Forest, Granger and Spruce streets, in this village, and I shall be obliged if you will advise me at your early convenience, when the Board will be able to come here for such a purpose, so that I may be able to give notice to the selectmen and parties interested.

Very truly yours,

H. A. HARMAN.

The foregoing petition was duly submitted to the Board for its action, by Commissioner Ormsbee, and the following report shows the proceedings had in the matter:

REPORT.

IN BOARD OF RAILROAD COMMISSIONERS.

MONTPELIER, July 14, 1890.

In the Matter of the Petition of the Pittsford and Rutland Railroad Company for permission to cross River, Forest, Granger and Spruce streets, in the village of Rutland.

Upon application made and due notice to the said railroad company, the selectmen of the town of Rutland, and the corporation of the village of Rutland, the Board met said parties at the Bardwell

House in Rutland, on the 8th day of July, A. D., 1890, at nine o'clock A. M., and after explanation and exhibition of plans of the location of the proposed railroad and the streets which are proposed to be intersected by it, the Board and said parties viewed the premises and heard the further explanation of the parties.

And after considering the same, the Board finds and orders as follows, to wit :

That the Board deems it necessary that said railroad company have leave to construct its road across said streets.

By the Board,

ALFRED E. WATSON, *Clerk*.

DECISIONS.

HIGHWAY GRADE CROSSINGS ABOLISHED AT DORSET.

IN BOARD OF RAILROAD COMMISSIONERS.

MONTPELIER, March 5, 1890.

In the matter of the change in the highway about a half a mile south of North Dorset in the town of Dorset, at the primary instance of the Board of Railroad Commissioners, so as to avoid two highway crossings at grade over the Bennington and Rutland Railway.

After due notice to the said railway company, the selectmen of said town and the owners of the land between said crossings, over which the highway would extend if the change be made, the Board met the parties at said crossings and examined the premises. The said town was represented by its selectmen, the said railway company by M. S. Colburn, one of its directors, and E. D. Bennett, superintendent, and the said land owners were present in person.

And after such examination, and after hearing the representations of all of said parties, the Board is of the opinion that the public safety requires an alteration of the highway crossed at grade by said railway at two points about 450 feet apart at this place, so as to obviate both of said crossings.

And the Board, therefore, at its own primary instance, orders,—that said highway be altered in accordance with the following new location and survey, to wit:—

Beginning in the center of the track of the present traveled highway, at a point opposite and east of the center of the fourth rail south of the present highway crossing, said point of beginning being 15 feet or about 15 feet easterly of the railroad fence as now located, and 35 feet east of the center of the railroad track, and thence going northerly along the easterly line of said railroad to and beyond the second crossing and to the center of the highway as now travelled, at a point northerly or northeasterly of the said second crossing,

which last named point is about 68 feet from the center of the highway and the center of the railroad track at said second or northerly crossing.

Said highway as altered is to be three rods wide and the railroad fence on the easterly side of the railroad is to be the westerly line of said new road. And the traveled track of the same is to be as far from said fence as is reasonably practicable in view of the conformation of the ground over which it is to be worked.

There are 15 rails between the southerly end of the planking of the southerly crossing and the southerly end of the planking of the northerly crossing, and $21\frac{1}{2}$ rails from the place of beginning to the place of ending.

And the Board further orders, that the said alteration be made by the said railway company, and that the land be taken and said alteration be made and completed and said highway be opened for public travel, to the approval of said Board, on or before the 1st day of August, A. D. 1890.

The Board further orders, that said town of Dorset do pay to said railway company, as its proportion of the expense of making such alteration and of the land damages, if any there be to be paid to said land owners, the sum of fifty dollars (\$50.00.)

By the Board,

ALFRED E. WATSON, *Clerk.*

NOTE.—The time fixed in the report within which the highway should be completed was subsequently extended by the Board to Oct. 1, 1890.

PART V.

ANNUAL RETURNS
OF
RAILROADS.

ANNUAL REPORT
OF THE
ATLANTIC & ST LAWRENCE RAILROAD
UNDER LEASE TO THE
GRAND TRUNK RAILWAY COMPANY
OF CANADA,
FOR THE YEAR ENDING JUNE 30, 1889.

HISTORY.

Name of Common Carrier making this report : Atlantic & St. Lawrence Railroad Co.

Date of organization : Sept. 27, 1845.

Chartered by the State of Maine, Feb. 10, 1845.

“ “ “ New Hampshire, June 30, 1847.

“ “ “ Vermont, Oct. 27, 1848.

Not a consolidated company.

Operated by the Grand Trunk Railway Company of Canada.

ORGANIZATION.

Names of Directors.	Post-Office Address.	Date of Expiration of Term.
Joseph Hickson.....	Montreal, Canada.....	First Tuesday of Aug., 1889, or until successors are elected.
Philip H. Brown.....	Portland, Maine.....	
Sir Alexander T. Galt.....	Montreal, Canada.....	
Charles E. Barrett.....	Portland, Maine.....	
Harrison J. Libby.....	“ “.....	
Franklin R. Barrett..	“ “.....	
Francis K. Swan.....	“ “.....	
George P. Wescott....	“ “.....	
William L. Putnam..	“ “.....	

Total number of stockholders at date of last election : 1,337.

Date of last meeting of stockholders for election of directors : August 7, 1888.

Post-office address of general office : Portland, Maine.

Post-office address of operating office : Montreal, Canada.

OFFICERS.

President—Joseph Hickson, Montreal, Canada.

Vice-President—Philip H. Brown, Portland, Maine.

Secretary—Franklin R. Barrett, Portland, Maine.

Treasurer—W. W. Duffett, Portland, Maine.

Operated by lessees.

PROPERTY LEASED OR OTHERWISE ASSIGNED FOR OPERATION.

Name.	TERMINALS.		By what Company Operated.	Under what Kind of Contract Operated.	Miles of Line.
	From	To			
Atlantic & St. Lawrence Railroad	Portland, Maine.	Island Pond, Vermont.	The Grand Trunk Railway Company of Canada.	Leased for 999 years from August 5, 1853.	149.37

The Atlantic & St. Lawrence Railroad was leased to the Grand Trunk Railway Company of Canada for 999 years, dating from August 5, 1853, the lessee assuming all obligations, and guaranteeing six per cent interest per annum on the capital stock, the authority being granted for the lease by an Act of the Legislature of Maine, approved March 29, 1853, and by an Act of the Legislature of New Hampshire, dated July 12, 1856.

CAPITAL STOCK.

Description.	Par Value of Shares.	Total par Value Authorized.	Total Am't Issued and Outstanding.	DIVIDENDS DECLARED DURING YEAR.	
				Rate.	Amount.
Capital St'k U.S. Cy., common.	\$100	\$5,484,000 00	\$5,484,000 00	6 $\frac{1}{2}$	\$329,040 00
Capital Stock, Sterling	£100				
Preferred	None.				

FUNDED DEBT.

Class of Bond or Obligation.	TIME.		Amount of Authorized Issue.	Amount Issued.	Amount Outstanding.
	Date of Issue.	When Due.			
Company's Second Mortgage Bonds	Oct. 1, 1864	5-20	\$1,500,000 00	\$1,499,916 00	All
Company's 3rd Mort'ge Bonds.	May 1, 1871	5-20	713,000 00	712,932 00	All
Balance on exchange of bds.	-----	-----	-----	152 00	All
Total	-----	-----	\$2,213,000 00	\$2,213,000 00	All

RECAPITULATION.

Account.	Total Amount Outstanding.	AMOUNT PER MILE OF ROAD	
		Miles.	Amount.
Capital Stock	\$5,484,000 00	149.37	\$36,714 00
Bonds	2,213,000 00	149.37	14,815 00

COST OF ROAD AND EQUIPMENT.

Item.	Total Cost to June 30, 1888.	Cost per Mile.
Grand Total Cost Construction and Equipment.....	\$8,484,000 00	\$56,798 00

INCOME ACCOUNT.

Gross Earnings from Operation.....	\$1,063,967 10	
Less Operating Expenses.....	801,415 37	
Income from Operation.....		\$262,551 73
Deductions from Income :		
Interest on Funded Debt Accrued and Guaranteed Dividends.....	480,602 00	
Taxes.....	18,176 21	
Total Deductions from Income.....		498,778 21
Deficit		\$236,226 48
Deficit from Operations of Year ending June 30, 1889.....		236,226 48
The lessee receives all income and pays all expenses.		

EARNINGS FROM OPERATION.

Passenger Revenue.....	\$ 272,778 87
Total Passenger Revenue.....	272,778 87
Mail	19,017 22
Express.....	} 18,434 38
Extra Baggage and Storage.....	
Total Passenger Earnings.....	310,230 47
Freight Revenue.....	751,532 38
Total Freight Revenue.....	751,532 38
Total Freight Earnings.....	751,532 38
Total Passenger and Freight Earnings.....	1,061,762 85
Other Earnings from Operations :	
Rentals not otherwise provided for.....	2,204 25
Total other Earnings.....	2,204 25
Total Gross Earnings from Operation.....	\$1,063,967 10

OPERATING EXPENSES.

Maintenance of Way and Structures.....	\$178,364 07
Maintenance of Equipment.....	358,724 78
Conducting Transportation.....	228,453 63
General Expenses, including Taxes.....	54,049 10
Recapitulation of Expenses :—	
Maintenance of Way and Structures.....	178,364 07
Maintenance of Equipment.....	358,724 78
Conducting Transportation.....	228,453 63
General Expenses.....	54,049 10
Grand Total.....	\$819,591 58

SECURITY FOR FUNDED DEBT.

Class of Bond or Obligation.	WHAT ROAD MORTGAGED.		Miles.
	From	To	
Mortgage	Atlantic & St. Lawrence.		
.....	Portland, Me.	Island Pond, Vt.	149.37

What Equipments Mortgaged? All.

PASSENGER, FREIGHT, AND TRAIN MILEAGE.

Passenger Traffic :

Number of passengers carried earning revenue	313,004	
Number of passengers carried one mile	10,380,674	
Total Passenger Revenue.....		\$ 272,778 87
Average receipts per passenger per mile		2.62
Passenger earnings per mile of road....		1,818 52
Passenger earnings per train mile....		22.50

Freight Traffic :

Number of tons carried of freight earning revenue.....	955,929	
Number of tons carried one mile.....	101,263,329	
Total freight revenue.....		751,532 38
Average receipts per ton per mile	{ Local, Through,	1.47
		0.54
Freight earnings per mile of road....		5,010 21
Freight earnings per train mile.....		62

Passenger and Freight :

Passenger and freight earnings.....	1,024,311 25
Passenger and freight earnings per mile of road.....	6,828 73

Total earnings per mile of road, including mails, express, etc.....

7,093 11

Train Mileage :

Miles run by passenger trains.....	296,605
Miles run by freight trains.....	492,567
Miles run by mixed trains.....	140,972

Total mileage trains earning revenue	930,144
--------------------------------------	---------

Miles run by switching trains.....	277,633
Miles run by construction and other trains	

Grand total Train Mileage....	1,207,777
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Average number of freight cars in train	20
---	----

Average number of loaded cars in train	20
--	----

Average number of tons of freight in train	240
--	-----

Average number of tons of freight in each loaded car.....	12
---	----

Equipment furnished by the lessees.

MILEAGE OWNED BY ROAD MAKING THIS REPORT.

In State of Maine	82.55
" " New Hampshire	52.02
" " Vermont	14.80
Total Mileage owned (single track).....	149.37
Rails all steel.	

ACCIDENTS TO PERSONS.

Kind of Accident.	EMPLOYES.	OTHERS.		
	Trainmen.	Trespassers.		Not Trespassing.
	Injured.	Killed.	Injured.	Killed.
Coupling and Uncoupling.....	4			
Overhead Obstructions.....	1			
At Highway Crossings.....				1
Other Causes.....	3	1	2	
Total.....	8	1	2	1

CHARACTERISTICS OF ROAD.

WORKING DIVISIONS OR BRANCHES.		ALIGNMENT.		PROFILE.					
From	To	Miles.	Aggregate Length of Curved Line.	Length of Straight Line.	ASCENDING GRADES.		DESCENDING GRADES.		
					Sum of Ascents.	Aggregate Length of Ascend'g Grades.	Sum of Descents.	Aggregate Length of Descend'g Grades.	
Portland Me.	Island Pond, Vermont.	149.37	Miles. 60.02	Miles. 89.35	Miles. 37.96	Feet. 7.65	Miles. 33.37	Feet. 1938	Miles. 72.04

CHARACTERISTICS OF ROAD.—CONTINUED.

Bridges.—Number of stone, 2 ; number of iron 45.

Trestles.—Pile, 1.

Gauge of Track.—4 feet 8½ inches.

Telegraph.—Operated by this Company, 149.37 miles.

STATE OF MAINE, }
County of Cumberland. } ss.

We, the undersigned, F. R. Barrett, Clerk and Secretary, and W. W. Duffett, Treasurer, of the Atlantic & St. Lawrence Railroad Company, on our oath do severally say that the foregoing return has been prepared, under our direction, from the original books, papers, and records of said Company, and statements received from Lessees ; that we have carefully examined the same, and declare the same to be a complete and correct statement of the business and affairs of said Company in respect to each and every matter and thing therein set forth, to the best of our knowledge, information, and belief ; and we further say that no deductions were made before stating the gross earnings or receipts herein set forth, so far as we know, the statements being given by Lessees, except those shown in the foregoing accounts ; and that the accounts and figures contained in the foregoing returns embrace all of the financial operations of said Company during the period for which said return is made.

F. R. BARRETT, *Clerk and Secretary*.

W. W. DUFFETT, *Treasurer*.

Subscribed and sworn to before
me this 13th day of September,
1889.

GEO. E. B. JACKSON,
Justice of the Peace.

ANNUAL REPORT OF THE BENNINGTON AND RUTLAND RAILWAY COMPANY,

FOR THE YEAR ENDING JUNE 30, 1889.

HISTORY.

Name of common carrier making this report: The Bennington and Rutland Railway Company.

Date of organization: August, 1877.

Organized under the Laws of the State of Vermont.

Original name of corporation: Bennington and Rutland Railroad Company. Reorganized under the General Statutes of Vermont.

ORGANIZATION.

Names of Directors.	Post-Office Address.	Date of Expiration of Term.
J. G. McCullough,...	No. Bennington, Vt....	First Tuesday in July.
F. B. Jennings,.....	City of New York, N.Y.	
T. L. Park,.....	No. Bennington, Vt....	
G. W. Harman,.....	Bennington, Vt.	
C. E. Houghton,.....	No. Bennington, Vt....	

Total number of stockholders at date of last election: Seven. (7).

Date of last meeting of stockholders for election of directors: First Tuesday in July.

Post-office address of general office: North Bennington, Vermont.

Post-office address of operating office: Supt., Bennington; S. F. and P. A., also Master Mechanic, Rutland. Other general offices at North Bennington, Vermont.

OFFICERS.

President—J. G. McCullough, North Bennington, Vt.

Vice-President—F. B. Jennings, City of New York, N. Y.

Secretary, G. W. Harman, Bennington, Vt.

Treasurer—C. E. Houghton, North Bennington, Vt.

Auditor—W. G. Shaw, North Bennington, Vt.

General Passenger Agent—H. W. Spafford, Rutland, Vt.

General Ticket Agent—In charge of Auditor.

General Superintendent—E. D. Bennett, Bennington, Vt.

General Baggage Agent—In charge of General Passenger Agent.

PROPERTY OPERATED.

Name.	TERMINALS.		Miles of Line for Each Road Named.	Miles of Line for Each Class of Roads Named.
	From	To		
Bennington and Rutland Railway.....	Bennington, Vt..... North Bennington.....	Rutland, Vt..... N. Y. State Line.....	57.06 1.85	58.91

CAPITAL STOCK.

Description.	Par Value of Shares.	Total Par Value Authorized.	Total Amount Issued and Outstanding.	Market Price of Shares.		Dividends Declared During Year.	
				June 30, 1889.	Average for Year.	Rate.	Amount.
Capital Stock : 20,000 Common	\$50 00	\$1,000,000 00	\$1,000,000 00	\$50 00	\$50 00	\$2 per share 4 per ct.	\$40,000 00
Manner of Payment for Capital Stock.				Number of Shares.		Total Cash Realized.	
Issued for Reorganization : Common.....				20,000		\$1,000,000 00	

FUNDED DEBT.

Class of Bond or Obligation.	TIME.		Amount of Authorized Issue.	Amount Issued.	Amount Outstanding On	Cash Realized On Amount Issued.	INTEREST.			
	Date of Issue.	When Due.					Rate.	When Payable.	Amount Accrued During Year.	Amount Paid During Year.
First Mortgage.	Nov. 1877.	Nov. 1 1897.	\$475,000.00	\$475,000 00	\$475,000 00	\$475,000 00	7 %	May and Nov. 1.	\$33,250 00	\$33,250 00

RECAPITULATION OF FUNDED DEBT.

Account.	Amount Issued.	Amount Outstanding.	INTEREST.	
			Amount Accrued During Year.	Amount Paid During Year.
Bonds.....	\$475,000 00	\$475,000 00	\$33,250 00	\$33,250 00
Total.....	\$475,000 00	\$475,000 00	\$33,250 00	\$33,250 00

CURRENT ASSETS AND LIABILITIES.

CASH AND CURRENT ASSETS AVAILABLE FOR PAYMENT
OF CURRENT LIABILITIES.

Cash.....	\$20,188 39
Due from Agents.....	11,213 34
Traffic Balances due from other Companies.....	842 72
Due from solvent companies and individuals.....	2,716 93
* Other Cash Assets.....	2,953 63
Total.....	\$37,915 01

* Materials and Supplies on Hand, \$2,953 63.

CURRENT LIABILITIES ACCRUED TO AND INCLUDING
JUNE 30, 1889.

Audited Vouchers and Accounts.....	\$5,757 05
Wages and Salaries.....	6,860 49
Traffic Balances due to other Companies.....	8,336 93
Matured Interest Coupons unpaid (including Coupons due July 1).....	5,541 67
Balance—Cash Assets.....	11,418 87
Total.....	\$37,915 01

RECAPITULATION.

Account.	Total Amount Outstanding	Apportion- ment to Railroads.	AMOUNT PER MILE OF ROAD.	
			Miles.	Amount.
Capital Stock.....	\$1,000,000 00	\$1,000,000 00	5891	\$16,975 00
Bonds.....	475,000 00	475,000 00	5891	8,063 00
Total.....	\$1,475,000 00	\$1,475,000 00		\$25,038 00

PERMANENT IMPROVEMENTS FOR THE YEAR.

Item.	EXPENDITURES DURING THE YEAR.		Credits Property and Material Sold.
	Included in Operat- ing Ex- penses.	Total Expendi- tures.	
Construction :			
Rails			\$992 28
Equipment :			
Baggage, Express and Postal Cars	\$2,000 00	\$2,000 00	
Freight Cars	4,550 00	4,550 00	
Total	\$6,550 00	\$6,550 00	\$992 28

COST OF ROAD AND EQUIPMENT.

Item.	Total Cost to June 30, 1888.	Net Ad- ditions During Year.	Total Cost to June 30, 1889.	Cost Per Mile.
Total Construction.			\$1,475,000 00	\$25,038 00
Equipment :				
Locomotives	\$48,150 00		48,150 00	
Passenger Cars	24,000 00		24,000 00	
Baggage, Express and Postal Cars	9,650 00	\$2,000 00	11,650 00	
Combination Cars	3,000 00		3,000 00	
Freight Cars	97,000 00	4,550 00	101,550 00	
Total Equipment ..	\$181,800 00	\$6,550 00	\$188,350 00	\$3,197 25
Grand Total Cost Construction and Equipment			\$1,663,350 00	\$28,235 25

INCOME ACCOUNT.

Gross Earnings from Operation	\$208,174 83	
Less Operating Expenses	162,194 45	
Income from Operation,		\$45,980 38
Iron sold		992 28
Total Income,		\$46,972 66

Deductions from Income :		
Interest on Funded Debt Accrued.....	\$33,250 00	
Taxes	4,066 22	
Total Deductions from Income,		\$37,316 22
Net Income,		\$9,656 44
Dividends, 4 per cent., Common Stock....		40,000 00
Deficit from Operations of Year ending June 30, 1889.....		30,343 56
Surplus on June 30, 1888.....		41,762 43
Surplus on June 30, 1889.....		11,418 87

EARNINGS FROM OPERATION.

Item.	Total Receipts.	Actual Earnings.
Total Passenger Revenue.....	\$98,279 70	
Mail	9,267 72	
Express	4,800 00	
Total Passenger Earnings.....		\$112,347 42
Freight Revenue.....	\$94,561 68	
Total Freight Revenue.....		\$94,561 68
Total Passenger and Freight Earnings.....		\$206,909 10
Other Sources.....		1,265 73
Total Gross Earnings from Oper- ation.....		\$208,174 83

OPERATING EXPENSES.

Maintenance of Way and Structures :	
Repairs of Roadway.....	\$ 28,526 97
Renewals of Rails	4,716 23
Renewals of Ties.....	11,422 12
Repairs of Bridges and Culverts.....	4,599 36
Repairs of Fences, Road-crossings, Signs, and Cattle- guards	2,485 86
Repairs of Buildings.....	2,489 95
Other Expenses	2,207 29
Total.....	\$ 56,447 78

Maintenance of Equipment :

Repairs and renewals of Locomotives	\$ 7,488 52
Repairs and renewals of Passenger Cars	10,858 01
Repairs and renewals of Freight Cars	11,800 25
Shop Machinery, Tools, etc.	1,140 70

Total..... \$ 31,287 48

Conducting Transportation :

Wages of Enginemen, Firemen and Round-housemen \$	10,350 75
Fuel for Locomotives	24,248 31
Water-supply for Locomotives	124 00
Wages of other Trainmen	16,257 62
All other train supplies	3,794 51
Wages of Switchmen, Flagmen and Watchmen	2,782 45
Wages of Station Agents, Clerks, and Laborers	6,138 00
Station supplies	1,056 35
Car Mileage—Balance	689 53
Loss and Damage	374 25
Injuries to persons	562 00
Other expenses	334 07

Total..... \$ 66,711 84

General Expenses :

Salaries of Officers	\$ 4,700 00
Salaries of Clerks	443 00
Advertising	547 00
Insurance	813 50
Stationery and Printing	657 81
Other General Expenses	586 04

Total..... \$ 7,747 35

Recapitulation of Expenses :

Maintenance of Way and Structures	\$ 56,447 78
Maintenance of Equipment	31,287 48
Conducting Transportation	66,711 84
General Expenses	7,747 35

Grand Total..... \$162,194 45

Percentage of Operating Expenses to Earnings, 77.91 per cent.

CASH STATEMENT OF FINANCIAL OPERATIONS FOR THE YEAR.

Resources to Account for.	Item.	Total.	Resources Accounted for.	Item.	Total.
Net Income :	\$45,980 38		Fixed Charges :		
From Other Sources.....	992 28		Interest on Funded Debt	\$33,250 00	
Total.....		\$ 46,972 66	Taxes.....	4,066 22	
Increase in Liabilities :			Total.....		\$ 37,316 22
Increase in Current Liabilities.....	\$ 1,868 40		Dividends :		
Total.....		\$ 1,868 40	Total.....	\$40,000 00	\$ 40,000 00
Decrease in Assets :			Increase in Assets :		
Cash on Hand.....	\$25,991 78		Cash Assets.....	\$26,433 06	
Total.....		\$ 25,991 78	Other Assets.....	1,427 12	
Miscellaneous :			Total.....		\$ 27,860 18
Profit and Loss, June, '88	\$41,762 43		Miscellaneous :		
Total.....		\$ 41,762 43	Profit and Loss, June, '89	\$11,418 87	
Grand Total.....		\$116,595 27	Total.....		\$ 11,418 87
			Grand Total.....		\$116,595 27

SECURITY FOR FUNDED DEBT.

Class of Bond or Obligation.	WHAT ROAD MORTGAGED.		
	From	To	Miles.
First Mortgage.	Bennington .. North Bennington	Rutland New York State Line.	58.91

EMPLOYES AND SALARIES.

Class.	Number.	Total Yearly Compensation.	Average Daily Compensation.
General Officers.....	4	\$ 4,700 00	
Road Master, Master Mechanic.....	2	2,700 00	
General Office Clerks.....	2	443 00	\$ 71
Station Agents, Other Station Men.....	19	7,731 10	1 30
Enginemen.....	6	5,634 00	3 00
Firemen.....	6	3,004 80	1 60
Conductors.....	6	4,632 40	2 47
Other Trainmen.....	16	7,361 76	1 47
Machinists.....	5	3,192 60	2 04
Carpenters.....	11	7,436 88	2 16
Other Shopmen.....	14	6,353 90	1 45
Section Foremen.....	12	5,880 00	1 57
Other Trackmen.....	54	18,592 20	1 10
Switchmen, Flagmen, and Watchmen.....	7	2,988 00	1 17
All other Employes and Laborers.....	4	1,627 60	1 30
The above is figured on the number of men in June, 1889, and rates per day.			
Total.....	168	\$82,278 24	
Actual Pay Roll for Year.....	----	81,949 84	
Distribution of above :			
General Administration.....	6	\$ 5,143 00	
Maintenance of Way and Structures.....	71	28,676 52	
Maintenance of Equipment.....	27	15,479 06	
Conducting Transportation.....	64	32,979 66	
Total.....	168	\$82,278 24	

PASSENGER, FREIGHT AND TRAIN MILEAGE.

Item.	Column for Tonnage, Num- ber Passengers, Number Trains, Mileage, Number Cars.	COLUMN FOR REV- ENUE AND RATES.		
		Dollars.	Cts.	Mills.
Passenger Traffic :				
Number of passengers carried earning revenue.....	175,371			
Number of passengers carried one mile.....	3,561,597			
Average distance carried.....	20			
Total passenger revenue.....		\$ 98,279	70	
Average amount received from each passenger.....			56	041
Average receipts per passen- ger per mile.....			2	759
Passenger earnings per mile of road.....		1,665	76	
Passenger earnings per train mile.....			48	513
Freight Traffic :				
Number of tons carried of freight earning revenue...	128,845			
Number of tons carried one mile.....	4,056,342			
Average distance haul of one ton.....	31			
Total freight revenue.....		94,561	68	
Average amount received for each ton of freight.....			76	392
Average receipts per ton per mile.....			2	331
Freight earnings per mile of road.....		1,602	74	
Freight earnings per train mile.....		1	09	487
Passenger and freight :				
Passenger and freight earn- ings.....		192,841	38	
Passenger and freight earn- ings per mile of road.....		3,268	50	
Expense per mile of road.....		2,749	06	
Total earnings per mile of road, including Mails, Ex- press, etc.....		3,528	38	
Train Mileage :				
Miles run by passenger trains	202,584			

PASSENGER, FREIGHT AND TRAIN MILEAGE.—Continued.

Item.	Column for Tonnage, Num- ber Passengers, Number Trains, Mileage, Number Cars.	COLUMN FOR REV- ENUE AND RATES.		
		Dollars.	Cts.	Mills.
Miles run by freight trains..	86,368			
Total Mileage Trains Earn- ing Revenue.....	288,952			
Miles run by switching trains	8,025			
Miles run by construction and other trains.....	6,810			
Grand Total Train Mileage	303,787			

FREIGHT TRAFFIC MOVEMENT.

Commodity.	Freight Originat- ing on this Road. Whole Tons.	Freight Received from Connect- ing Roads and other Carriers. Whole Tons.	TOTAL FREIGHT TONNAGE.	
			Whole Tons.	Per Cent.
Products of Agriculture :				
Grain,	1,955	12,883	14,838	11.52
Flour,				
Other Mill Products,				
Hay,				
Tobacco,				
Cotton,	1,955	12,883	14,838	11.52
Fruit and Vegetables,				
Products of Animals :				
Live Stock,	670	1,592	2,262	1.76
Dressed Meats,				
Other Packing-house Pro- ducts,				
Poultry, Game, and Fish,				
Wool,				
Hides and Leather,				

FREIGHT TRAFFIC MOVEMENT.—Continued.

Commodity.	Freight Originat- ing on this Road. Whole Tons.	Freight Received from Connect- ing Roads and other Carriers. Whole Tons.	TOTAL FREIGHT TONNAGE.	
			Whole Tons.	Per Cent.
Products of Mines :				
Anthracite Coal.....		17,424	17,424	13.52
Marble.....	9,029	3,283	12,311	9.55
Products of Forest :				
Lumber.....	19,347	12,422	31,769	24.66
Charcoal.....	5,905	1,470	7,375	5.73
Manufactures :				
Petroleum and other Oils, Sugar, Naval Stores, Iron, Pig and Bloom, Iron and Steel Rails, Other Castings and Ma- chinery, Bar and Sheet Metal, Cement, Brick, and Lime, Agricultural Implements, Wagons, Carriages, Tools, etc., Wines, Liquors, and Beers, Household Goods and Fur- niture, Merchandise.....	9,889	14,527	24,416	18.95
	4,050	7,844	11,894	9.23
Miscellaneous :				
Other commodities not men- tioned above.....	4,713	1,843	6,556	5.08
Total Tonnage.....	55,558	73,287	128,845	100.00

DESCRIPTION OF EQUIPMENT.

Item.	Number Added During Year.	Total Number at End of Year.	EQUIPPED WITH TRAIN BRAKE.		CARS FITTED WITH AUTOMATIC COUPLER.	
			Number.	Kind.	Number.	Kind.
Locomotives:						
Passenger		9	9	Westinghouse Automatic Air.		
Freight						
Switching						
Total		9	9			
Cars in Passenger Service:						Miller Platform Automatic Coupler.
First-class Passenger Cars		11	9	Westinghouse	9	
Second-class Passenger Cars		8	8	Automatic Air.	8	
Baggage, Express and Postal Cars ..	1					
Total	1	19	17		17	
Cars in Freight Service:						
Box Cars	3	92				
Flat Cars	8	123				
Total	11	215				

MILEAGE.

Line in Use.	Main Line Owned.	Branch Line Owned.	Total Mileage Operated.	RAILS.	
				Iron.	Steel.
Miles of single track.	57.06	1.85	58.91		58.91
Miles of side tracks, sidings, and spurs.	5.25		5.25	5.25	
Total Mileage Operated (all tracks)...	63.31	1.85	64.16	5.25	58.91

MILEAGE OF LINE BY STATES AND TERRITORIES.

State or Territory.	Main Line Owned.	Branch Line Owned.	Total Mileage, Excluding Trackage Rights.	Steel Rails.
Vermont	57.06	1.85	58.91	58.91
Total Mileage Operated (single track)....	57.06	1.85	58.91	58.91

MILEAGE OWNED BY ROAD MAKING THIS REPORT.

	Main Line Owned.	Branch Line Owned.	Total Mileage, Excluding Trackage Rights.
	57.06	1.85	58.91
Total Mileage Owned (single track)	57.06	1.85	58.91

RENEWALS OF RAILS AND TIES.

NEW RAILS LAID DURING YEAR.				NEW TIES LAID DURING Y'R.		
Kind.	Tons.	W'g't per Yard.	Average Price per Ton at Distrib- uting Point.	Kind.	Num- ber.	Aver- age Price at Dis- tribut- ing Point.
Steel, renewals.	158	60 lbs.	\$29'85	Hard wood.	29,658	38 1-2c.

CONSUMPTION OF FUEL BY LOCOMOTIVES.

Locomotives.	Tons Bitum- inous Coal.	Cords Hard Wood.	Total Fuel Consumed Tons.	Miles Run.	Average Pounds Consumed per Mile.
Passenger Freight Switching..... Construction. } Average Cost at distributing points.....	6,763	236	6,920	303,787	51 lbs.
	\$3.47	\$3.50			

CHARACTERISTICS OF ROAD.

Bridges—Wooden, 28 Howe Truss. Combination, 4 Pile. Aggregate length, 216 feet.

Trestles—1. Aggregate length, 100 feet.

Gauge of Track—Four feet eight and one-half inches, (4 ft. 8 1-2 in.)

GENERAL INFORMATION.

Station-house and terminal facilities at Rutland. Central Vermont R. R. (Rutland Division.)

The following Fast Freight Lines operate on this road: National Despatch Line; Rome, Watertown and Og'd. Line; Nickel Plate Line; West Shore Line; Hoosac Tunnel Line; Erie Despatch Line; Inter-State Despatch Line; Commercial Express Line; Lackawanna Line; Traders Despatch Line; West Shore and Boston Line; Lackawanna and Boston Line.

STATE OF VERMONT, }
County of Bennington, } ss.

We, the undersigned, E. D. Bennett, Superintendent, and W. G. Shaw, Auditor, of the Bennington and Rutland Railway Company, on our oath do severally say that the foregoing return has been prepared, under our direction, from the original books, papers, and records of said Company, that we have carefully examined the same, and declare the same to be a complete and correct statement of the business and affairs of said Company in respect to each and every matter and thing therein set forth, to the best of our knowledge, information, and belief; and we further say that no deductions were made before stating the gross earnings or receipts herein set forth, except those shown in the foregoing accounts; and that the accounts and figures contained in the foregoing returns embrace all of the financial operations of said Company during the period for which said return is made.

E. D. BENNETT, *Superintendent.*
W. G. SHAW, *Auditor.*

Subscribed and sworn to before
me this 19th day of August,
1889.

S. B. HALL,
Notary Public.

ANNUAL REPORT
OF THE
BOSTON AND MAINE RAILROAD,
PASSUMPSIC DIVISION,
FOR THE YEAR ENDING JUNE 30, 1889.

HISTORY.

Name of common carrier making this report : Boston and Maine Railroad—Passumpsic Division.

ORGANIZATION.

Names of Directors Boston and Maine Rd.	Post-Office Address.	Date of Expiration of Term.
Geo. C. Lord.....	Newton, Mass.....	December 11, 1889.
Amos Paul.....	S. Newmarket, N. H.....	
Wm. S. Stevens.....	Dover, N. H.....	
Jos. S. Ricker.....	Deering, Me.....	
Richard Olney.....	Boston, Mass.....	
Sam'l C. Lawrence.....	Medford, Mass.....	
Frank Jones.....	Portsmouth, N. H.....	
Wm. T. Hart.....	Boston, Mass.....	

Date of last meeting of stockholders for election of directors :
December 12, 1888.

Post-office address of general office : Boston, Mass.

Post-office address of operating office : Boston, Mass.

OFFICERS.

President—Geo. C. Lord, Boston, Mass.

Treasurer—Amos Blanchard, Boston, Mass.

Chief Engineer—H. Bissell, Boston, Mass.

General Auditor—Wm. J. Hobbs, Boston, Mass.

General Manager—James T. Furber, Boston, Mass.

General Freight Agent—Wm. F. Berry, Boston, Mass.

General Passenger Agent— } Dana J. Flanders, Boston, Mass.

General Ticket Agent— }
Division Superintendent—H. E. Folsom, Lyndonville, Vt.

General Baggage Agent, W. R. Brackett, Boston, Mass.

PROPERTY OPERATED.

Name.	TERMINALS.		Miles of Line for Each Road Named.	Miles of Line for Each Class of Roads Named.
	From	To		
Connecticut and Passumpsic Rivers Railroad	White River Junction, Vt.	Canada Line	110.30	
Massawippi Valley Railway	Canada Line	Lennoxville, P. Q.	36.75	147.05

The Massawippi Valley Railway was leased to the Connecticut and Passumpsic Rivers Railroad.
 The Connecticut and Passumpsic Rivers Railroad was leased to the Boston and Lowell Railroad Corporation.
 The Boston and Lowell Railroad and leased lines were leased to the Boston and Maine Railroad, as of April 1, 1887.

INCOME ACCOUNT.

Gross Earnings from Operation.....	\$782,027 85	
Less Operating Expenses.....	531,701 22	
		\$250,326 63
Miscellaneous Income—less Expenses—		7,986 33
Total Income,		\$258,312 96
Taxes	\$11,202 05	
Total Deductions from Income,		11,202 05
Net Income,		\$247,110 91

EARNINGS FROM OPERATION.

Item.	Total Receipts.	Deductions Account of Repayments, Etc.	Actual Earnings.
Passenger Revenue.....	\$303,912 71		
Tickets Redeemed.....		\$69 01	
Total Deductions.....		\$69 01	
Total Passenger Revenue..			\$303,843 70
Mail.....			21,160 89
Express			19,519 01
Extra Baggage and Storage			2,249 60
Total Passenger Earnings			\$346,773 20
Freight.....	\$442,518 62		
Overcharge to Shippers..		\$7,263 97	
Total Deductions.....		\$7,263 97	
Total Freight Revenue...			\$435,254 65
Total Freight Earnings..			\$435,254 65
Total Gross Earnings from Operation			\$782,027 85

MISCELLANEOUS INCOME.

Item.	Gross Income.	Less Expenses.	Net Miscellaneous Income.
Rents, Tenements, Lands, etc.	\$8,542 65	\$4,082 99	\$4,459 66
Interest, etc.....	3,526 67		3,526 67
Total.....	\$12,069 32	\$4,082 99	\$7,986 33

OPERATING EXPENSES.

Item.	Chargeable to Passenger Traffic.	Chargeable to Freight Traffic.	Total.
Maintenance of Way and Structures:			
Repairs of Roadway.....	\$27,669 55	\$36,678 24	\$64,347 79
Renewals of Rails.....	1,863 99	2,470 87	4,334 86
Renewals of Ties.....	6,592 95	8,739 50	15,332 45
Repairs of Bridges and Culverts.....	17,476 51	23,166 52	40,643 03
Repairs of Fences, Road-crossings, Signs and Cattle-Guards.....	2,969 03	3,935 69	6,904 72
Repairs of Buildings.....	12,531 75	16,611 85	29,143 60
Repairs of Docks and Wharves.....		112 56	112 56
Repairs of Telegraph.....	1 07	1 43	2 50
Other Expenses.....	19 97	26 48	46 45
Total.....	\$69,124 82	\$91,743 14	\$160,867 96
Maintenance of Equipment:			
Repairs and Renewals of Locomotives.....	\$13,584 86	\$18,007 86	\$31,592 72
Repairs and Renewals of Passenger Cars.....	8,332 81		8,332 81
Repairs and Renewals of Freight Cars.....		36,224 75	36,224 75
Shop Machinery, Tools, etc.	5,414 77	7,177 70	12,592 47
Other Expenses.....	10 17	13 48	23 65
Total.....	\$27,342 61	\$61,423 79	\$88,766 40
Conducting Transportation:			
Wages of Enginemen, Firemen, and Roundhouse-men.....	\$20,129 15	\$28,023 51	\$ 48,152 66
Fuel for Locomotives.....	41,708 83	60,135 14	101,843 97
Water-supply for Locomotives.....	427 15	566 22	993 37
All other supplies for Locomotives.....	1,595 62	2,115 14	3,710 76
Wages of other Trainmen.....	19,349 77	22,063 32	41,413 09
All other Train Supplies.....	1,912 19	2,087 88	4,000 07
Wages of Switchmen, Flagmen, and Watchmen.....	2,581 83	3,422 42	6,004 25
Expense of Telegraph, including Train Dispatchers and Operators.....	1,610 53	2,134 89	3,745 42

OPERATING EXPENSES—Continued.

Item.	Chargeable to Passenger Traffic.	Chargeable to Freight Traffic.	Total.
Wages of Station Agents, Clerks and Laborers.....	\$9,744 76	\$17,175 30	\$26,920 06
Station Supplies.....	2,508 93	485 94	2,994 87
Car Mileage—Balance.....	748 87	3,274 45	4,023 32
Loss and Damage.....	693 00	950 23	1,643 23
Injuries to persons.....	895 79	1,187 45	2,083 24
Other Expenses.....	338 07	13 11	351 18
Total.....	\$104,244 49	\$143,635 00	\$247,879 49
General Expenses :			
Salaries of Officers.....	\$5,273 00	\$5,804 74	\$11,077 74
Salaries of Clerks.....			
General Office Expenses and Supplies.....	421 51	535 55	957 06
Agencies, including Sal- aries and Rent.....	8,933 32	37 97	8,971 29
Advertising.....			
Commissions.....			
Insurance.....	3,169 19	4,201 03	7,370 22
Expense of Fast Freight Lines.....		1,987 96	1,987 96
Legal Expenses.....	222 77	295 31	518 08
Stationery and Printing.....	1,208 24	1,618 19	2,826 43
Other General Expenses.....	232 76	245 83	478 59
Total.....	\$19,460 79	\$14,726 58	\$34,187 37
Recapitulation of Expenses :			
Maintenance of Way and Structures.....	\$69,124 82	\$91,743 14	\$160,867 96
Maintenance of Equipment.....	27,342 61	61,423 79	88,766 40
Conducting Transportation.....	104,244 49	143,635 00	247,879 49
General Expenses.....	19,460 79	14,726 58	34,187 37
Grand Total.....	\$220,172 71	\$311,528 51	\$531,701 22
Percentage of Operating Ex- penses to Earnings.....			67.99 %

CONTRACTS, AGREEMENTS, ETC.

1. American Express Company—Performing all through express service, also doing business between local points. Compensation based on weights carried.

2. Post-office Departments United States and Canadian Governments. Compensation based on space and car service furnished. Is fixed by the Government.

3. Monarch Palace Car Company.

4. Through traffic arrangements with all Railroad and Steamboat Companies.

7. Western Union Telegraph Company.

EMPLOYES AND SALARIES.

Class.	Number.	Total Yearly Compensation.	Average Daily Compensation.
General Officers.....	5	\$ 7,839 96	
General Office Clerks.....			
Station Agents.....	41	16,758 24	\$1 30
Other Station Men.....	30	13,804 44	1 47
Enginemen—\$2.45, \$2.70, \$3.50....	30	25,826 88	2 75
Firemen—\$1.50, \$1.70, \$1.90....	28	14,151 84	1 61
Conductors—Passenger, \$75 per month, \$2.50, \$2.25 per day.			
Freight, \$50, \$55 per month....	22	15,042 36	2 18
Other Trainmen.....	52	23,571 12	1 45
Mechanists and Helpers—\$2.25, \$2.00, \$1.85, \$1.75. Helpers,			
\$1.35, \$1.00.....	32	18,691 32	1 87
Carpenters—\$2.00, \$1.90, \$1.60....	52	27,107 76	1 67
Other Shopmen.....	39	20,626 32	1 69
Section Foremen and Road Masters (Foremen \$1.50).....	47	23,402 16	1 59
Other Trackmen.....	137	49,334 04	1 15
Switchmen, Flagmen and Watchmen.....	26	8,948 00	1 09
Telegraph Operators and Dispatchers.....	8	4,000 08	1 59
Employees—Account Floating Equipment.....	0	0	0
All other Employees and Laborers	87	42,049 72	1 54
Total.....	636	\$311,154 24	\$1 53
Distribution of above :			
General Administration.....	5	\$ 7,839 96	
Maintenance of Way and Structures.....	239	98,039 52	\$1 31
Maintenance of Equipment....	155	83,171 80	1 71
Conducting Transportation....	237	122,102 96	1 64
Total.....	636	\$311,154 24	\$1 53

* Does not include General Officers and Clerks at Boston.

PASSENGER, FREIGHT, AND TRAIN MILEAGE.

Item.	Column for Tonnage, Num- ber Passengers, Number Trains, Mileage, Number Cars.	COLUMN FOR REV- ENUE AND RATES.		
		Dollars.	Cts.	Mills.
Passenger Traffic :				
Number of passengers carried earning revenue.....	295,674			
Number of passengers carried one mile.....	11,219,587			
Average distance carried....	37.946			
Total passenger revenue.....		\$303,843	70	
Average amount received from each passenger.....		1	02	763
Average receipts per passen- ger per mile.....			02	708
Estimated cost of carrying each passenger one mile.....			01	962
Passenger earnings per mile of road—Revenue.....		2,066	26	
Passenger earnings per train- mile—Revenue.....			91	831
Freight Traffic :				
Number of tons carried of freight earning revenue....	601,837			
Number of tons carried one mile.....	34,705,856			
Average distance haul of one ton.....	57.666			
Total freight revenue.....		435,254	65	
Average amount received for each ton of freight.....			72	321
Average receipts per ton per mile.....			01	254
Estimated cost of carrying one ton one mile.....			00	897
Freight earnings per mile of road.....		2,959	91	
Freight earnings per train- mile.....			99	168
Passenger and Freight :				
Passenger and freight earn- ings.....		782,027	85	
Passenger and freight earn- ings per mile of road.....		5,318	10	
Expense per mile of road.....		2,615	78	

PASSENGER, FREIGHT, AND TRAIN MILEAGE—Continued.

Item.	Column for Tonnage, Num- ber Passengers, Number Trains, Mileage, Number Cars.	COLUMN FOR REV- ENUE AND RATES.		
		Dollars.	Cts.	Mills.
Number of passenger trains...	23			
Number of freight trains....	14			
Number of mixed trains.....	9			
Train Mileage :				
Miles run by passenger trains	330,872			
Miles run by freight trains..	438,904			
Total Mileage Trains Earning Revenue	769,776			
Miles run by switching trains	30,790			
Miles run by construction and other trains.....	12,179			
Grand Total Train Mileage...	812,745			

DESCRIPTION OF EQUIPMENT.

Item.	Total Number At End of Year. Owned by C. & P. Rd.	EQUIPPED WITH TRAIN BRAKE.		CARS FITTED WITH AUTOMATIC COUPLER.	
		No.	Kind.	No.	Kind.
Locomotives :					
Passenger	18	18	"Westing- house Auto- matic."		
Freight	11				
Switching	1				
Total.....	30				
Cars in Passenger Ser- vice :					
First-class Passenger Cars	18	13	"	13	Miller.
Combination Passenger Cars	8	8	"	8	"

DESCRIPTION OF EQUIPMENT—Continued.

Item.	Total Number At End of Year. Owned by C. & P. Rd.	EQUIPPED WITH TRAIN BRAKE.		CARS FITTED WITH AUTOMATIC COUPLER.	
		No.	Kind.	No.	Kind.
Parlor Cars.....	2	2	"Westing- house Auto- matic."	2	Miller.
Baggage, Express and Postal Cars.....	5	5		5	"
Total.....	33	28		28	
Cars in Freight Service:					
Box Cars.....	512				
Flat Cars.....	469				
Stock Cars.....	74				
Refrigerator Cars..	5				
Other Cars.....	2				
Total.....	1,062				
Cars in Company's Ser- vice:					
Derrick Cars.....	3				
Caboose Cars.....	9				
Other road Cars.....	4				
Total.....	16				
Total owned.....	1,111	28		28	
Grand Total.....	1,111	28		28	

RENEWALS OF RAILS AND TIES.

NEW RAILS LAID DURING YEAR.			NEW TIES LAID DURING YEAR.		
Kind.	Tons.	Weight Per Yard.	Average Price per Ton at Distributing Point.	Kind.	Number.
Steel	268	60	\$80	Hemlock Cross Ties.....	28,804
				Tamarack ".....	11,867
				Cedar ".....	24,034
Total Steel.....	268	60	\$80	Total.....	64,705
					Average Price at Distributing Point.
					.24
					.24
					.26

CONSUMPTION OF FUEL BY LOCOMOTIVES.

Locomotives.	COAL—TONS.		WOOD—CORDS.		Total Fuel Consumed—Tons.	Miles Run.	Average Pounds Consumed Per Mile.
	Anthracite.	Bituminous.	Hard	Soft.			
Passenger.....							
Freight.....							
Switching.....							
Construction.....							
Total.....	13,298.40	13,298.40	8,731½		17,663.600	812,745	48.68
Average Cost at Distributing Point, \$5.56 per ton.			8,731½		17,663.600	812,745	48.68

ACCIDENTS TO PERSONS.

KIND OF ACCIDENT.	EMPLOYEES.			
	TRAINMEN.		TOTAL.	
	Killed.	Injured.	Killed.	Injured.
Coupling and Uncoupling.....	1	2	1	2
Falling from Trains and Engines.....	1	1	1	1
Overhead Obstructions.....	1	1	1	1
Derailments.....	1	1	1	1
Other Train Accidents.....	1	1	1	1
Total.....	3	4	3	4
	OTHERS.			
	PASSENGERS.		TOTAL.	
	Injured.	Killed.	Killed.	Injured.
Collisions.....	1	1	1	1
At Stations.....	1	1	1	1
Total.....	1	1	1	1

CHARACTERISTICS OF ROAD.

Bridges :

Number Iron.....	1
Number Wooden.....	48

Trestles :

Number.....	21
Aggregate Length.....	2,921 feet.

STATE OF MASSACHUSETTS, } ss :
 County of Suffolk,

We, the undersigned, George C. Lord, President, and William J. Hobbs, General Auditor, of the Boston and Maine Railroad, on our oath do severally say that the foregoing return has been prepared, under our direction, from the original books, papers, and records of said Company ; that we have carefully examined the same, and declare the same to be a complete and correct statement of the business and affairs of said Company in respect to each and every matter and thing therein set forth, to the best of our knowledge, information and belief ; and we further say that no deductions were made before stating the gross earnings or receipts herein set forth, except those shown in the foregoing accounts ; and that the accounts and figures contained in the foregoing return embrace all of the financial operations of said Company during the period for which said return is made.

GEORGE C. LORD, *President.*

WM. J. HOBBS, *General Auditor.*

Subscribed and sworn to before me,
 this 28th day of August, 1889.

SAM'L B. HILDRETH,
Justice of the Peace.

ANNUAL REPORT OF THE CENTRAL VERMONT RAILROAD COMPANY

FOR THE YEAR ENDING JUNE 30, 1889.

HISTORY.

Name of common carrier making this report: Central Vermont Railroad Company.

Date of organization: May 27, 1873.

Organized under the Laws of the State of Vermont, Act No. 204, approved November 23, 1873.

Original corporation: The Vermont Central Railroad Company; Chartered October 31, 1843, Act No.

ORGANIZATION.

Names of Directors.	Post-office Address.	Date of Expiration of Term.
J. Gregory Smith.....	St. Albans, Vt.....	September 11, 1889.
J. R. Langdon.....	Montpelier, Vt.....	
E. C. Smith.....	St. Albans, Vt.....	
Benj. P. Cheney.....	Boston, Mass.....	
Joseph Hickson.....	Montreal, P. Q.....	
W. H. H. Bingham.....	Montpelier, Vt.....	
Robert Wright.....	Montreal, P. Q.....	

Date of last meeting of stockholders for election of directors: October 10, 1888.

Post-office address of general office: St. Albans, Vt.

Post-office address of operating office: St. Albans, Vt.

OFFICERS.

President—J. Gregory Smith, St. Albans, Vt.

1st Vice-President—James R. Langdon, Montpelier, Vt.

2d Vice-President—Edward C. Smith, St. Albans, Vt.

Clerk—Geo. T. Childs, St. Albans, Vt.

Treasurer—D. D. Ranlett, St. Albans, Vt.

Cashier—Geo. W. Safford, St. Albans, Vt.

Chief Engineer—William Babbitt, St. Albans, Vt.

Gen'l Solicitor, Attorney, or Counsel—B. F. Fifield, Montpelier, Vt.

Auditor—E. G. Lucas, St. Albans, Vt.

General Manager—J. W. Hobart, St. Albans, Vt.

Traffic Manager, Through Traffic—John Porteous, Boston, Mass.

Supt. Local Freight Traffic—E. A. Chittenden, St. Albans, Vt.

General Passenger Agent—S. W. Cummings, St. Albans, Vt.

General Superintendent—J. M. Foss, St. Albans, Vt.

Division Superintendent—J. Burdett, Rutland, Vt.

Division Superintendent—C. F. Spaulding, New London, Conn.

Division Superintendent—F. W. Baldwin, Ogdensburg, N. Y.

Division Superintendent—L. B. Futvoye, St. Johns, P. Q.

Superintendent of Telegraph—M. Magiff, St. Albans, Vt.

Superintendent of Motive Power—W. J. Robertson, St. Albans, Vt.

General Baggage Agent—H. Brainerd, St. Albans, Vt.

PROPERTY OPERATED.

Name.	TERMINALS.		Miles of Line for Each Road Named.	Miles of Line for Each Road Named.
	From	To		
Consolidated Railroad of Vermont.....	Windsor	Province Line..... Rouse's Point.....	11 158.4	169.4
Consolidated Railroad of Vermont.....	Burlington	Essex Junction.....	8	.....
Consolidated Railroad of Vermont.....	Montpelier Junction.....	Montpelier	1.4	.....
Montpelier and White River	Montpelier	Williamstown	13.5	.....
Rutland.....	Bellows Falls.....	Burlington	119.7	.....
Addison County.....	Leicester Junction.....	Ticonderoga.....	15.6	.....
Vermont and Massachusetts.....	Miller's Falls.....	Brattleboro.....	21	.....
Brattleboro and Whitehall.....	Brattleboro	South Londonderry.....	36	.....
Missisquoi Valley.....	St. Albans.....	Richford	28	.....
Total.....			220.3	412.6

INCOME ACCOUNT.

Gross Earnings from Operation.....	\$2,732,621 77	
Less Operating Expenses.....	1,913,534 00	
Income from Operation.....		\$819,087 77
Total Income.....		\$819,087 77
Deductions from Income:		
Interest on Funded Debt, Accrued.....	\$350,000 00	
Int. on Int.-bearing Current Liabilities		
Accrued, not otherwise provided for	64,877 07	
Rentals, including Tracks, Yards, and		
Terminals.....	329,200 00	
Taxes.....	55,077 43	
Total Deductions from Income.....		\$799,154 50
Net Income.....		\$19,933 27
Surplus from Operations of Year ending		
June 30, 1889.....		\$19,933 27
Surplus on June 30, 1888.....		34,133 11
Surplus June 30, 1889.....		\$54,066 38

EARNINGS FROM OPERATION.

Item.	Total Receipts.	Deductions Account of Repayments, Etc.	Actual Earnings.
Passenger Revenue.....	\$ 863,311 07		
Tickets Redeemed.....		\$1,029 38	
Excess Fares Refunded.....		2,020 96	
Total Deductions.....		\$3,050 34	
Total Passenger Revenue.....			\$860,260 73
Mail.....	61,141 28		
Express.....	37,696 79		
Extra Baggage and Storage.....	6,593 71		105,431 78
Total Passenger Earnings.....			\$965,692 51
Freight Revenue.....	\$1,819,654 34		
Overcharge to Shippers.....		\$40,057 44	
Other Repayments.....		12,667 64	
Total Deductions.....		\$52,725 08	
Total Freight Revenue.....			\$1,766,929 26
Total Freight Earnings.....			\$1,766,929 26
Total Passenger & Freight Earnings.....			\$2,732,621 77
Total Gross Earnings from Operation.....			\$2,732,621 77

OPERATING EXPENSES,

Item.	Chargeable to Passenger Traffic. 39%	Chargeable to Freight Traffic. 61%	Total.
Maintenance of Way and Structures:			
Repairs of Roadway.....	\$84,880 02	\$132,761 06	\$217,641 08
Repairs of Bridges and Culverts.....	23,603 67	36,918 56	60,522 23
Repairs of Fences, Road-crossings, Signs, and Cattle-guards.....	2,407 85	3,766 13	6,173 98
Repairs of Buildings.....	10,625 45	16,619 28	27,244 73
Repairs of Docks and Wharves.....	156 72	245 12	401 84
Total.....	\$121,673 71	\$190,310 15	\$311,983 86
Maintenance of Equipment:			
Repairs and Renewals of Locomotives.....	\$37,545 78	\$58,725 44	96,271 22
Repairs and Renewals of Passenger Cars.....	50,010 43		50,010 43
Repairs and Renewals of Freight Cars.....		108,226 63	108,226 63
Shop Machinery, Tools, etc.	5,743 45	8,983 34	14,726 79
Other Expenses.....	10 53	16 47	27 00
Total.....	\$ 93,310 19	\$175,951 88	\$269,262 07
Conducting Transportation:			
Wages of Enginemen, Firemen, and Round-house-men.....	\$ 51,818 80	\$ 81,049 91	\$132,868 71
Fuel for Locomotives.....	142,023 41	222,139 17	364,162 58
Water-supply for Locomotives.....	2,919 60	4,566 54	7,486 14
All other Supplies for Locomotives.....	6,072 87	9,498 57	15,571 44
Wages of other Trainmen..	62,422 55	97,635 27	160,057 82
All other Train Supplies.....	11,234 96	17,572 61	28,807 57
Wages of Switchmen, Flagmen, and Watchmen.....	11,397 39	17,826 67	29,224 06
Expense of Telegraph, including Train Dispatchers and Operators.....	8,681 19	13,578 26	22,259 45

OPERATING EXPENSES—Continued.

Item.	Chargeable to Passenger Traffic. 39%	Chargeable to Freight Traffic. 61%	Total.
Wages of Station Agents, Clerks, and Laborers.....	40,514 36	63,368 61	103,882 97
Station Supplies.....	13,293 23	20,791 96	34,085 19
Car Mileage—Balance.....		143,236 01	143,236 01
Loss and Damage.....	3,231 15	5,053 85	8,285 00
Injuries to Persons.....	12,960 43	20,271 42	33,231 85
Total.....	\$366,569 94	\$716,588 85	\$1,083,158 79
General Expenses:			
Salaries of Officers.....	\$24,343 80	\$38,076 20	\$62,420 00
Salaries of Clerks.....	18,654 73	29,177 90	47,832 63
General Office Expenses and Supplies.....	326 34	510 42	836 76
Agencies, including Salaries and Rent.....	21,936 68	34,311 20	56,247 88
Advertising.....	2,014 92	3,151 52	5,166 44
Insurance.....	7,440 74	11,638 07	19,078 81
Expense of Traffic Associa- tions.....	1,170 25	1,830 38	3,000 63
Legal Expenses.....	11,877 92	18,578 27	30,456 19
Stationery and Printing.....	9,493 08	14,694 86	24,089 94
Total.....	\$97,160 46	\$151,968 82	\$249,129 28
Recapitulation of Expenses:			
Maintenance of Way and Structures.....	\$121,673 71	\$190,310 15	\$311,983 86
Maintenance of Equipment.....	\$ 93,310 19	\$ 269,262 07	\$175,951 88
Conducting Transportation.....	366,569 94	1,083,158 79	716,588 85
General Expenses.....	97,160 46	249,129 28	151,968 82
Grand Total.....	\$746,278 38	\$1,913,534 00	\$1,167,255 62
Percentage of Operating Ex- penses to Earnings.....		70%	

RENTALS PAID.

Name of Road.	Cash.	Total.
Rutland and Addison County	\$258,000 00	\$258,000 00
Vermont and Massachusetts	39,000 00	39,000 00
Brattleboro and Whitehall	12,000 00	12,000 00
Missisquoi Valley	20,200 00	20,200 00
Grand Total Rentals Paid	\$329,200 00	\$329,200 00

IMPORTANT CHANGES DURING THE YEAR.

Montpelier and White River Extension. From Barre to Williams-town, 7 3-10th miles, opened 15th July, 1888.

Burlington and Lamoille Valley Railroad. Leased 1st May, 1889.

CONTRACTS. AGREEMENTS, ETC.

Express Companies.

United States and Canada Company	\$46,000 00
American Company	" " "
National Company	6,500 00

The Compensation received from the United States and Canada covers the service over our roads in Canada and over the Ogdensburg and Lake Champlain and the New London Northern.

Mails.

United States Government Contract, expired 30th June, 1889, \$66,983.30 per annum.

Pullman Cars.

The Central Vermont Railroad Company pays the outside repairs, but no service. The receipts of the cars are taken by the Pullman Company.

Wagner Cars.

The Central Vermont Railroad Company pays 2c. per mile service. The receipts of the cars are taken by the Wagner Company.

Freight and Transportation Companies' Cars.

The Central Vermont Railroad Company pays at the rate of 4c. and 1c. per mile with the exceptional rates to three or four roads of 1½ and 2c. per mile.

EMPLOYES AND SALARIES.

Class.	Number.	Total Yearly Compensa- tion.	Average Daily Compensa- tion.
General Officers.....	19	\$62,420 00	
General Office Clerks.....	138	89,604 06	\$2 08
Station Agents.....	105	47,952 95	1 48
Other Station Men.....	219	71,359 73	1 05
Enginemen.....	120	94,510 04	2 45
Firemen.....	115	53,724 91	1 50
Conductors.....	97	64,528 67	2 14
Other Trainmen.....	303	131,761 13	1 27
Machinists.....	142	76,263 34	1 73
Carpenters.....	257	113,479 79	1 42
Other Shopmen.....	146	56,861 36	1 25
Section Foremen.....	92	44,569 01	1 56
Other Trackmen.....	390	107,509 22	88
Switchmen.....	11	3,796 62	1 12
Telegraph Operators and Dis- patchers.....	35	16,143 74	1 48
All other Employes and Laborers.....	177	62,619 55	1 12
Total.....	2,366	\$1,097,104 12	
Distribution of Above:			
General Administration.....	157	152,024 06	
Maintenance of Way and Struc- tures.....	739	265,558 02	
Maintenance of Equipment.....	288	133,124 70	
Conducting Transportation.....	1,182	546,397 34	
Total.....	2,366	\$1,097,104 12	

PASSENGER, FREIGHT, AND TRAIN MILEAGE.

Item.	Column for Tonnage, Num- ber Passengers, Number Trains, Mileage, Number Cars.	COLUMN FOR REV- ENUE, AND RATES.		
		Dollars.	Cts.	Mills.
Passenger Traffic:				
Number of passengers carried earning revenue.....	1,175,591			
Number of passengers carried one mile.....	34,165,482			
Average distance carried.....	.810			
Total passenger revenue.....		860,360	73	
Average amount received from each passenger.....			73	
Average receipts per passen- ger per mile.....			02	5
Estimated cost of carrying each passenger one mile.....			02	1
Passenger earnings per mile of road.....		2,082	95	5
Passenger earnings per train- mile.....			90	6
Freight Traffic:				
Number of tons carried of freight earning revenue....	2,325,779			
Number of tons carried one mile.....	211,101,058			
Average distance haul of one ton.....	.610			
Total freight revenue.....		1,766,929	26	
Average amount received for each ton of freight.....			74	
Average receipts per ton per mile.....			00	83
Estimated cost of carrying one ton one mile.....			00	55
Freight earnings per mile of road.....		4,278	27	9
Freight earnings per train- mile.....		1	17	1
Passenger and Freight:				
Passenger and freight earn- ings (Revenue).....		2,627,189	99	
Passenger and freight earn- ings per mile of road, do...		6,361	23	4
Expense per mile of road.....		4,633	30	

PASSENGER, FREIGHT, AND TRAIN MILEAGE—CONTINUED.

Item.	Column for Tonnage, Num- ber Passengers, Number Trains, Mileage, Number Cars.	COLUMN FOR REV- ENUE, AND RATES.		
		Dollars.	Cts.	Mills.
Total earnings per mile of road, including Mails, Ex- press, etc.....		6,616	51	7
Number of passenger trains.....	41			
Number of freight trains, Extra trains not included.....	30			
Number of mixed trains....	18			
Train Mileage:				
Miles run by passenger trains.....	949,427			
Miles run by freight trains....	1,507,793			
Total Mileage Trains Earning Revenue	2,457,220			
Miles run by switching trains.....	478,514			
Miles run by construction and other trains.....	156,793			
Grand Total Train Mileage..	3,092,527			
Average number of freight cars in train.....	30			
Average number of loaded cars in train.....	15			
Average number of empty cars in train.....	15			
Average number of tons of freight in train.....	225			
Average number of tons of freight in each loaded car.	15			

DESCRIPTION OF EQUIPMENT.

Item.	Number Added During Year.	Total Number at End of Year.	EQUIPPED WITH TRAIN BRAKE.		CARS FITTED WITH AUTOMATIC COUPLER.	
			Number	Kind.	Number	Kind.
Locomotives:						
Passenger.....		47				
Freight.....		64				
Switching.....		13				
Total.....		124	47	Westinghouse.		
Cars in Passenger Service;						
First-class Passenger Cars.....		86				
Parlor Cars.....		1		do.	86	Miller.
Baggage, Express, and Postal Cars.....		34		do.	1	do.
Other Cars in Passenger Service.....		2		do.	34	do.
Total.....		123	123	do.	2	do.
Cars in Freight Service:						
Box Cars.....		1,320				
Flat Cars.....		560				
Stock Cars.....		50				
Coal Cars.....	21	164				
					919	Safford Safety.
					20	United States.

DESCRIPTION OF EQUIPMENT—Continued.

Item.	Number Added During Year.	Total Number at End of Year.	EQUIPPED WITH TRAIN BRAKE.		CARS FITTED WITH AUTOMATIC COUPLER.	
			Number.	Kind.	Number.	Kind.
Refrigerator Cars.....	.....	21				Safford Safety.
Other Cars.....	.....	72				United States.
Total.....	21	2,187			939	
Cars in Company's service:						
Gravel Cars.....		19				
Derrick Cars.....		8				
Caboose Cars.....	1	63				
Other Road Cars.....		8				
Total.....	1	98				
Cars Contributed to Fast Freight Line Service: (R. W. & O.).....		35 500				
Total Owned.....		535				
Cars Leased.....	8.0	850	850			
Grand Total.....	850	3,793	850	Westinghouse.		

MILEAGE.

Line in Use.	Line Operated under Lease.	Total Mileage Operated.	New Line Constructed during Year.	RAILS.	
				Iron.	Steel.
Miles of Single Track	412.6	412.6	7.3	65.5	347.1
Miles of Yard Track, Sidings, and Spurs	10.43	104.3		94.1	10.2
Total Mileage Oper- ated (all tracks)...	516.9	516.9	7.3	159.6	357.3

MILEAGE OF LINE BY STATES AND TERRITORIES.

State or Territory.	Line Operated under Lease.	New Line Constructed during Year.	RAILS.	
			Iron.	Steel.
Vermont.....	401.6	7.3	65.5	336.1
Massachusetts.....	11			11
Total Mileage Operated (single track)	412.6	7.3	65.5	347.1

RENEWALS OF RAILS AND TIES.

NEW RAILS LAID DURING YEAR.				NEW TIES LAID DURING YEAR.		
Kind.	Tons.	Weight per Yard.	Average Price per Ton at Dis- tribut- ing Point.	Kind.	Number	Average Price at Distribut- ing Point.
Troy, N. Y.	150	40 lbs.	\$35 00	Cedar and Tamarack.	84,556	32½c.
Total Steel.	150	40 lbs.	\$35 00		84,556	32½c.

CONSUMPTION OF FUEL BY LOCOMOTIVES.

Locomotives.	COAL—TONS.	WOOD—CORDS.	Total Fuel Consumed—Tons.	Miles Run.	Average Pounds Consumed per Mile.
	Bituminous.	Hard.			
Passenger	22,329	11,550	29,029	949,427	61
Freight	33,716	18,258	45,888	1,507,793	60
Switching	10,320	5,589	14,046	478,514	58
Construction	3,440	1,863	4,682	156,793	59
Total	68,805	37,260	93,645	3,092,527	60
Average Cost at distributing point	\$3 34	\$3 55			

ACCIDENTS TO PERSONS.

Kind of Accident.	EMPLOYEES.			
	TRAINMEN.		Total.	
	Killed.	Injured.	Killed.	Injured.
Coupling and Uncoupling	1	9	1	9
Falling from Trains and Engines	5	7	5	7
Overhead Obstructions		1		1
Collisions		2		2
Other Train Accidents		2		2
At Highway Crossings	1	1	1	1
Other Causes	4	2	4	2
Total	11	24	11	24

	OTHERS.				
	TRESPASSERS.		NOT TRESPASSING.	TOTAL.	
	Killed.	Injured.	Injured.	Killed.	Injured.
Collisions			4		4
Other Train Accidents	3	2		3	2
At Highway Crossings	2	4		2	4
Other Causes	2	2		2	2
Total	7	8	4	7	12

CHARACTERISTICS OF ROAD.

WORKING DIVISIONS OR BRANCHES.			ALIGNMENT.			PROFILE.							
			Number of Curves.	Aggregate Length of Curved Line.	Length of Straight Line.	Length of Level Line.	ASCENDING GRADES.			DESCENDING GRADES.			
From	To	Miles.		Miles.	Miles.	Miles.	Number.	Sum of Ascents.	Aggregate Length of Ascending Grades.	Number.	Sum of Descents.	Aggregate Length of Descending Grades.	Miles.
Windsor	St. Albans	134.5	152	51.55	82.95	38.5	49	1,291	45.1	46	1,208	50.9	
St. Albans	Rouse's Point	23.9	17	7.5	16.4	8.75	5	55	1.8	12	328	13.3	
Montpelier Junction	Montpelier	1.47	5	.87	.6	1.47							
Montpelier	Williamstown	13.5	50	5.9	7.6	4	12	426	8.09	8	45	1.41	
Essex Junction	Burlington	8	8	2.5	5.5	.85	2	9	85	9	252	6.3	
Swanton Junction	Province Line	11	9	1.9	9.1	2.8	5	65	2.88	11	125	5.32	
Bellevue Falls	Burlington	119.7		42.96	76.74	33.3	10	1,340	37.4	19	1,370	49	
Leicester Junction	Ticonderoga	15.6	40	6.03	9.57	1.47	8	84	3.59	11	335	10.54	
Brattleboro	So. Londonderry	36	123	30	6	10.6	41	1,182	19	68	414	6.4	
Miller's Falls	Brattleboro	21				9.1	19	205	9.4	24	476	9.5	
St. Albans	Richford	28	80	11	16								

CHARACTERISTICS OF ROAD—Continued.

Bridges :

Number Stone	16
Number Iron.....	13
Number Wooden.....	308
Number Combination.....	1
	338

Tunnels :

Number.....	1
Maximum length.....	432 feet.
Minimum length.....	340 "
Aggregate length of all Tunnels.....	432 "

Gauge of Track—4 feet 8½ inches on all roads except Brattleboro and Whitehall which is 3 feet.

Telegraph—Owned by this Company, Rouse's Point to Windsor and Burlington, 167 miles of wire.

Owned by Western Union, operated by this Company, over all other portions of road, 393 miles of line.

Operated by this Company, over all other portions of road, 444 miles of wire.

STATE OF VERMONT, {
County of Franklin, } ss:

We, the undersigned, J. W. Hobart, General Manager, and E. G. Lucas, General Auditor, of the Central Vermont Railroad Company, on our oath do severally say that the foregoing return has been prepared, under our direction, from the original books, papers, and records of said Company; that we have carefully examined the same, and declare the same to be a complete and correct statement of the business and affairs of said Company in respect to each and every matter and thing therein set forth, to the best of our knowledge, information, and belief; and we further say that no deductions were made before stating the gross earnings or receipts herein set forth, except those shown in the foregoing accounts; and that the accounts and figures contained in the foregoing return embrace all of the financial operations of said Company during the period for which said return is made.

J. W. HOBART, *Gen'l Manager.*

EDWARD G. LUCAS, *Gen'l Auditor.*

Subscribed and sworn to before me
this 20th day of September, 1889.

GEO. T. CHILDS,

Notary Public.

ANNUAL REPORT
OF THE
CLARENDON & PITTSFORD RAILROAD COMPANY,
FOR THE YEAR ENDING JUNE 30, 1889.

HISTORY.

Name of common carrier making this report : The Clarendon and Pittsford Railroad Company.

Date of organization : Sept. 10, 1885.

Organized under the General Laws of the State of Vermont.

This road, which has been but recently completed, is intended for the transportation of freight mainly, such as marble, between the quarries and mills on its line.

ORGANIZATION.

Name of Directors.	Post-office Address.	Date of Expiration of Term.
Redfield Proctor.....	Proctor, Vt.....	2nd Monday Sept. 1889.
Dan. K. Hall.....	Rutland, Vt.....	
Fletcher D. Proctor....	Proctor, Vt.....	
Frank C. Partridge....	Proctor, Vt.....	
Geo Briggs.....	Brandon, Vt.....	

Total number of stockholders at date of last election : 20.

Date of last meeting of stockholders for election of directors : Oct. 1st, 1888.

Post-office address of general office : Proctor, Vermont.

Post-office address of operating office : Proctor, Vermont.

OFFICERS.

President—Redfield Proctor, Proctor, Vermont.

Secretary and Treasurer—Frank C. Partridge, Proctor, Vermont.

Chief Engineer—Fred R. Patch, Proctor, Vermont.

Auditor—E. R. Morse, Proctor, Vermont.

General Manager—Fletcher D. Proctor, Proctor, Vermont.

Superintendent—George C. Robinson, West Rutland, Vermont.

PROPERTY OPERATED.

Name.	TERMINALS.		Miles of Line for Each Class of Roads Named.
	From	To	
Clarendon & Pittsford	Proctor, Vt.	W. Rutland, Vt.	10

CAPITAL STOCK.

Description.	Par Value of Shares.	Total Par Value Authorized.	Total Amount Issued and Outstanding.
Capital Stock : Common	\$100 00	\$120,000 00	\$60,000 00
Total		\$120,000 00	\$60,000 00

Manner of Payment for Capital Stock.	Number of Shares.	Total Cash Realized
Issued for Cash : Common	600	\$6,000 00
Total	600	\$6,000 00

10 per cent paid in so far.

No Funded Debt.

CURRENT ASSETS AND LIABILITIES.

Cash and Current Assets Available for Payment of Current Liabilities.		Current Liabilities Accrued to and including June 30, 1889.	
Cash	\$ 31 43	Loans and bills payable	\$116,377 61
Balance—Current Liabilities	116,346 18		
Total	\$116,377 61	Total	\$116,377 61

RECAPITULATION.

Account.	Total Amount Outstanding.	Apportionm't. to Railroads.	Miles.	Amount per Mile of Road
Capital Stock paid in	\$6,000 00	\$6,000 00	10	\$600 00

For Mileage Operated by Road Making this Report (Trackage Rights excluded), the Operations of which are included in the Income Account.

Name of Road.	Capital Stock.	Current Liabilities.	Total.	Miles.	Amount per Mile.
Clarendon and Pittsford.....	\$6,000 00	\$116,346 18	\$122,346 18	10	\$12,234 62

PERMANENT IMPROVEMENTS FOR THE YEAR.

Item.	EXPENDITURES DURING THE YEAR.
	Not Included in Operating Expenses.
Construction :	
Right of Way.....	\$ 1,171 08
Grading, Bridge and Culvert Masonry.....	
Bridges and Trestles.....	
Rails.....	18,522 19
Ties.....	
Other Superstructure.....	
Buildings, Furniture and Fixtures.....	
Total Construction.....	\$19,693 27
Grand Total Construction and Equipment.....	\$19,693 27

COST OF ROAD AND EQUIPMENT.

Item.	Total Cost to June 30, 1888.	Net Additions During Year.	Total Cost to June 30, 1889.
Construction :			
Right of Way.....	\$ 4,775 00	\$ 1,171 08	\$ 5,946 08
Grading and Bridge and Culvert Masonry.....			
Bridges and Trestles.....	80,242 91	18,522 19	98,765 10
Rails.....			
Ties.....			
Total Construction.....	\$85,017 91	\$19,693 27	\$104,711 18

COST OF ROAD AND EQUIPMENT.—Continued.

Item.	Total Cost to June 30, 1888.	Net Additions During Year.	Total Cost to June 30, 1889.
Equipment :			
Locomotives.....	\$10,335 00		\$10,335 00
Freight Cars.....	7,300 00		7,300 00
Total Equipment....	\$17,635 00		\$17,635 00
Grand Total Cost Con- struction and Equip- ment	\$102,652 91	\$19,693 27	\$122,346 18

INCOME ACCOUNT.

Gross Earnings from Operation.....	\$11,837 00	
Less Operating Expenses.....	8,310 48*	
Income from Operation.....		\$3,526 52
Deductions from Income :		
Taxes	239 08	
Total Deductions from Income.....		239 08
Net Income.....		\$3,287 44

*The first 6 months estimated at \$4,000.

We estimate receipts for six months from July 1, 1888, to Jan. 1, 1889, as \$5,000. The road was in incomplete shape, and details could not be kept.

Since January 1st, the receipts were \$6,837.00.

EARNINGS FROM OPERATION.

Item.	Actual Earnings.
Freight :	
Total Freight Earnings.....	\$11,837 00
Total Gross Earnings from Operation....	\$11,837 00

Owing to the incomplete condition of the road, the receipts from July 1st to January 1st had to be estimated. From January 1st to July, 1889, the receipts were \$6,837.00.

OPERATING EXPENSES.

Item.	Chargeable to Pass'nger Traffic	Total.
Maintenance of Way & Structures :		
Repairs of Roadway	\$1,776 77	\$1,776 77
Conducting Transportation :		
Wages of Enginemen, Firemen, and Round-housemen	1,554 00	1,554 00
Other Expenses	979 71	979 71
Total	\$4,310 48	\$4,310 48

Owing to the incomplete condition of the road, it is impossible to divide expense previous to January 1st, and operating and construction expenses are given simply from that date.

GENERAL BALANCE SHEET.

Cost of road.....	\$104,711 18	Capital Stock paid in \$	6,000 00
Cost of Equipment..	17,635 00	Current Liabilities..	116,377 61
Cash and Current As- sets	31 43		
Total	\$122,377 61	Total	\$122,377 61

Freight only traffic. As more than one-half would have to be estimated, owing to the road not having been completed, and no records being kept until January 1st, the questions on opposite page (Passenger, Freight and Train Mileage) are not answered.

DESCRIPTION OF EQUIPMENT.

Item.	Total Number at End of Year.
Locomotives :	
Freight	2
Total	2
Cars in Freight Service :	
Flat Cars, 8 8-wheels, 30 4-wheels	38
Cars in Company's Service :	
Other Road Cars (dump)	20
Total	58
Grand Total	58

MILEAGE.

Line in Use.	Main Line Owned.	Steel Rails.
Miles of Single Track.....		
Miles of Yard Track (sidings and spurs)	10 2	10 2
Total Mileage Operated (all tracks)	12	12

Road all in Vermont.

ACCIDENTS TO PERSONS.

Total number of employes killed: trainmen, 1.

CHARACTERISTICS OF ROAD.

Bridges.—Iron, 5.

Trestles.—None permanent: will fill all.

Gauge of Track—Standard.

STATE OF VERMONT }
County of Rutland. } ss.

We, the undersigned, Edmund R. Morse, Auditor, and Frank C. Partridge, Treasurer, of the Clarendon and Pittsford Railroad Company, on our oath do severally say that the foregoing return has been prepared, under our direction, from the original books, papers, and records of said Company: that we have carefully examined the same, and declare the same to be a complete and correct statement of the business and affairs of said Company in respect to each and every matter and thing therein set forth, to the best of our knowledge, information and belief; and we further say that no deductions were made before stating the gross earnings or receipts herein set forth, except those shown in the foregoing accounts; and that the accounts and figures contained in the foregoing return embrace all of the financial operations of said Company during the period for which said return is made.

EDMUND R. MORSE, *Auditor.*

FRANK C. PARTRIDGE, *Treasurer.*

Subscribed and sworn to before
me this 27th day of August,
1889.

WM. SMITH, JR.,

Notary Public.

ANNUAL REPORT OF THE RENSSELAER AND SARATOGA RAILROAD,

BY THE

DELAWARE AND HUDSON CANAL CO., LESSEE,

FOR THE YEAR ENDING JUNE 30, 1889.

HISTORY.

Name of common carrier making this report: Delaware and Hudson Canal Company, Lessee.

ORGANIZATION.

Names of Directors.	Post Office Address.	Date of Expiration of Term.
Ahiel A. Low.....	Brooklyn.	2d Tuesday in May, 1890.
Le Grand B. Cannon....	New York City.	
James R. Taylor.....	Brooklyn.	
John Jacob Astor.....	New York City.	
James Roosevelt.....	Hyde Park.	
David Dows.....	New York City.	
Robert M. Olyphant....	" " "	
Benjamin H. Bristow...	" " "	
John A. Stewart.....	" " "	
Frederick Billings.....	Woodstock, Ver.	
R. Suydam Grant.....	New York City.	
W. H. Tillinghast.....	" " "	
Johnston Livingston....	" " "	

Total number of stockholders at date of last election : 2,474.

Date of last meeting of stockholders for election of directors : May 14th, 1889.

Post-office address of general office : New York City.

Post-office address of operating office : Albany.

OFFICERS.

President—Robert M. Olyphant, New York City.
 Vice-President—Le Grand B. Cannon, New York City.
 Vice-President, 2d—Horace G. Young, Albany.
 Secretary—F. Murray Olyphant, New York City.
 Treasurer—James C. Hartt, New York City.
 Assistant Treasurer—Charles A. Walker, New York City.
 Cashier—Charles H. Booth, New York City.
 Chief Engineer—A. J. Swift, Albany.

Gen'l Solicitor, Attorney, or Counsel—Edwin Young, Albany.
 Comptroller—J. White Sprong, Albany.
 Auditor—R. A. Henry, New York City.
 Traffic Manager—Heury S. Marcy, Albany.
 General Freight Agent—D. Farlin, Albany.
 General Passenger Agent—
 General Ticket Agent—
 General Superintendent—C. D. Hammond, Albany.
 Division Superintendent—P. H. Connors, Albany.
 Superintendent of Machinery—R. C. Blackall, Albany.
 Superintendent of Telegraph—J. W. Burdick, Albany.
 General Baggage Agent—C. S. Pease, Albany.

PROPERTY OPERATED.

Name.	TERMINALS.		Miles of Line for Each Road Named.	Miles of Line for Each Class of Roads Named.
	From	To		
Operated under Lease				
Main Line.	Albany	Lake Champlain	79.14	
<i>Branches.</i>				
West Troy and Green Island	West Troy	Green Isl'nd	1.08	
Rensselaer and Saratoga	Troy	Waterford		
Saratoga and Schenectady	Schenectady	Junct.	5.59	
Glens Falls R. R.	Fort Edw'd	Ballston ...	14.97	
Saratoga and Whitehall	Fort Edw'd	Caldwell ...	15.12	
Rutland and Whitehall	Whitehall	State Line ..	6.83	
Rutland and Washington	State Line ..	Castleton ..	6.83	
Mechanicville and Fort Edward	Eagle Bridge	Rutland	62.44	
	Mechanicville	Stillwater ..	2.86	194.86
<i>5. Line of Proprietary Companies: *</i>				
Mechanicville and Fort Edward	Mech'vile ..	Stillwater ..	2.86	
		Total		194.86

* All of whose Capital Stock is owned by this Company.

The current assets and liabilities cannot be given for each division of the roads, as but one account is kept for all.

The mileage opposite cannot be given, as the Lessee does not know what the capital, debts, and liabilities of the several companies whose roads he operates, are.

PERMANENT IMPROVEMENTS FOR THE YEAR.

Item.	EXPENDITURES DURING THE YEAR.		Credits Property and Material Sold.	Differences or Net Additions to Property, Etc. Deductions.
	Not Included in Operating Expenses.	Total Expenditures.		
Construction :				
Grading and Bridge and Culvert Masonry			\$ 57,301 16	\$ 57,301 16
Rails			355,786 20	355,786 20
Buildings, Furniture and Fixtures			56,504 07	56,504 07
Total Construction :				\$469,591 43
Equipment :				
Locomotives	\$ 10,500 00	\$ 10,500 00	\$240,497 67	229,997 67
Passenger Cars	102,489 39	102,489 39	191,223 00	88,732 61
Baggage, Express and Postal Cars	3,847 44	3,847 44	8,678 00	4,830 56
Freight Cars			372,820 00	372,820 00
Other Cars of all classes			1,000 00	1,000 00
Total Equipment	\$116,836 83	\$116,836 83	\$814,218 67	\$697,381 84
Grand Total Construction and Equipment				\$1,166,973 27

The permanent improvements in this table were made by and belong to the Lessee.

The credits given to Equipment arise from the sale and transfer of the Equipment to other divisions of the Road; those to Construction have been assumed by the Lessee.

INCOME ACCOUNT.

Gross Earnings from Operation	\$2,409,574 72
Less Operating Expenses	1,501,073 18
Income from Operation	\$908,501 54
Dividends on Stocks Owned	6,681 50
Income from Other Sources	\$6,681 50
Total Income	\$ 915,183 04

The stock on which the dividend was received belongs to the Rensselaer and Saratoga R. R. Co., but it forms part of the leased property.

INCOME ACCOUNT—Continued.

Deductions from Income :

Rentals, including Tracks, Yards and Terminals.....	\$937,33 69	
Taxes.....	103,588 18	
Total Deductions from Income....		1,060,924 87
Deficit		\$145,741 83
Deficit from Operations of Year ending June 30, 1889.....		\$145,741 83
Deficit on June 30, 1888.....		158,157 13
Deficit on June 30, 1889.....		\$303,898 98

EARNINGS FROM OPERATION.

Item.	Total Receipts.	Deductions Account of Repayments, Etc.	Actual Earnings.
Passenger :			
Passenger Revenue.....	\$857,653 03		
Tickets Redeemed.....		\$ 865 25	
Excess Fares Refunded.....		3,890 05	
Other Repayments.....		2,625 89	
Total Deductions.....		87,381 19	
Total Passenger Revenue.....			\$850,271 84
Mail			22,010 79
Express			60,272 68
Extra Baggage and Storage.....			5,546 22
Other Items.....			2,519 92
Total Passenger Earnings.....			\$940,621 45

EARNINGS FROM OPERATION—Continued.

Item.	Total Receipts.	Deductions Account of Repayments, Etc.	Actual Earnings.
Freight :			
Freight Revenue.....	\$1,418,972 25		
Overcharge to Shippers.....		\$8,421 09	
Total Deductions.....		\$8,421 09	
Total Freight Revenue.....			\$1,410,551 16
Total Freight Earnings.....			\$1,410,551 16
Total Passenger and Freight Earnings.....			2,351,172 61
Other Earnings from Operation :			
Telegraph Companies.....			4,367 93
Rentals, not otherwise provided for.....			11,005 72
Troy Toll Bridge.....			43,028 46
Total Other Earnings.....			\$58,402 11
Total Gross Earnings from Operation.....			\$2,409,574 72

OPERATING EXPENSES.

Item.	Chargeable to Passenger Traffic.	Chargeable to Freight Traffic.	Total.
Maintenance of Way and Structures :			
Repairs of Roadway.....	\$65,755 31	\$94,436 71	\$160,192 02
Renewals of Rails.....	12,611 12	17,950 77	30,561 89
Renewals of Ties.....	18,672 34	25,539 42	44,211 76
Repairs of Bridges and Culverts.....	9,943 11	13,914 84	23,857 95
Repairs of Fences, Road-crossings, Signs and Cattle Guards.....	3,673 45	5,343 54	9,016 99

OPERATING EXPENSES—Continued.

Item.	Chargeable to Passenger Traffic.	Chargeable to Freight Traffic.	Total.
Repairs of Buildings.....	\$10,131 44	\$11,792 04	\$21,913 48
Repairs of Telegraph (In- cluded in "Conducting Transfer.")			
Other Expenses.....	11,922 67	18,093 35	30,016 02
Total.....	\$132,699 44	\$187,070 67	\$319,770 11
Maintenance of Equipment :			
Repairs and Renewals of Lo- comotives.....	\$25,493 83	\$38,270 80	\$63,764 63
Repairs and Renewals of Passenger Cars.....	36,927 60		36,927 60
Repairs and Renewals of Freight Cars.....		89,223 58	89,223 58
Shop Machinery, Tools, etc.	2,838 85	4,278 01	7,116 86
Other Expenses.....	11,042 44	16,894 77	27,937 21
Total.....	\$76,302 72	\$148,667 16	\$224,969 88
Conducting Transportation :			
Wages of Enginemen, Fire- men, and Round-housemen	\$50,269 54	\$ 75,981 27	\$126,250 81
Fuel for Locomotives.....	99,342 16	151,720 34	251,062 50
Water-supply for Locomotives	1,855 80	3,050 30	4,906 10
All other supplies for Loco- motives. (Included in "All other Train Supplies.")			
Wages of other Trainmen... ..	41,081 07	81,841 06	122,922 13
All other Train Supplies.....	16,092 84	22,602 80	38,695 64
Wages of Switchmen, Flag- men and Watchmen.....	30,612 47	26,214 17	56,826 64
Expense of Telegraph, in- cluding Train Dispatchers and Operators.....	6,542 80	19,386 23	25,929 03
Wages of Station Agents, Clerks and Laborers.....	32,020 85	122,486 74	154,507 59
Station Supplies.....	8,748 61	5,028 42	13,777 03
Car Mileage—Balance.....	8,862 20	17,821 81	26,684 01
Loss and Damage.....	594 37	5,544 57	6,138 94
Injuries to Persons.....	13,240 20	1,958 80	15,199 00
Other Expenses.....	10,263 92	20,072 77	30,336 69
Total.....	\$319,526 83	\$553,709 28	\$873,236 11

OPERATING EXPENSES—Continued.

Item.	Chargeable to Passenger Traffic.	Chargeable to Freight Traffic.	Total.
General Expenses :			
Salaries of Officers..... }	\$12,072 40	\$25,778 72	\$37,851 12
Salaries of Clerks..... }			
General Office Expenses and Supplies.....	2,054 44	4,727 32	6,781 76
Agencies, including Salaries and Rent.....	3,314 51	2,114 04	5,428 55
Advertising.....	4,186 73	20 00	4,206 73
Commissions. (Included in "Agencies.")			
Insurance.....	5,160 90	8,414 10	13,575 00
Expense of Fast Freight Lines. (Included in "Agen- cies.")			
Legal Expenses.....	1,448 71	2,017 55	3,466 26
Stationery and Printing....	5,026 08	5,863 99	10,890 07
Other General Expenses....	679 42	218 17	897 59
Total.....	\$33,943 19	\$49,153 89	\$83,097 08
Recapitulation of Expenses :			
Maintenance of Way and Structures.....	\$132,699 44	\$187,070 67	\$319,770 11
Maintenance of Equipment	76,302 72	148,667 16	224,969 88
Conducting Transportation	319,526 83	553,709 28	873,236 11
General Expenses.....	33,943 19	49,153 89	83,097 08
Grand Total.....	\$562,472 18	\$938,601 00	\$1,501,073 18
Percentage of Operating Ex- penses to Earnings.....			62%

RENTALS PAID.

Name of Road.	Interest on on Bonds Guarant'ed	Dividends on Stock Guarante'd	Cash.	Total.
Rensselaer & Saratoga	\$137,375 00	\$692,960 00	\$ 1,000 00	\$831,335 00
Albany & Vermont			20,000 00	20,000 00
N. Y. C. & Hudson River.....			2,500 00	2,500 00
Rutland & Whitehall			15,492 00	15,492 00
Saratoga & Schenec- tady.....			31,750 00	31,750 00
Green Island Lots....			455 81	455 81
Delaware & Hudson Canal Co. Interest on Equipment			55,803 88	55,803 88
Total Rentals.....				\$957,336 69

All rents paid for lease of other property is included in the operating expenses.

CONTRACTS, AGREEMENTS, ETC.

National Express Company, which pays for local freight $1\frac{1}{2}$ first-class tariff rates; between New York and Rutland, Vt., and Rouse's Point, N. Y., $\frac{2}{3}$ first-class; between other competing points, first-class. Also 10 per cent. of their profits.

Mails are transported for the compensation fixed by the Government.

Wagner Palace Car Company, which is paid 3 cents per mile run for Sleeping Cars, and 1 cent per mile for Drawing Room Cars.

Pullman's Palace Car Company, which is paid 3 cents per mile run.

The Western Union Telegraph Company receives 50 per cent. of the receipts from revenue business of the lines on this road, which are owned and operated by the Railroad Company, with the exception of one wire from Eagle Bridge to Castleton ($47\frac{5}{100}$ miles), which is owned by the Western Union Telegraph Company, and operated by the Railroad Company, the Western Union Telegraph Company's proportion of receipts being same as on rest of line.

EMPLOYES AND SALARIES.

Class.	Number.	Total Yearly Compensation.	Average Daily Compensation.
General Officers.....	5	\$ 15,940 00	
General Office Clerks.....	34	21,911 12	\$1 76
Station Agents and Clerks.....	93	62,245 98	1 83
Other Station Men.....	183	84,920 53	1 43
Enginemen.....	61	71,607 14	3 75
Firemen.....	60	39,886 06	2 12
Conductors.....	38	33,703 86	2 83
Other Trainmen.....	151	89,218 27	1 89
Machinists.....	64	39,525 01	1 97
Carpenters.....	107	59,746 84	1 76
Other Shopmen.....	192	98,394 80	1 63
Section Foremen.....	54	28,740 00	1 65
Other Trackmen.....	340	117,911 63	1 10
Switchmen, Flagmen and Watchmen.....	128	56,826 64	1 37
Telegraph Operators and Dispatchers.....	34	23,931 92	1 93
All other Employes and Laborers.....	266	110,776 16	1 32
Total.....	1,810	\$955,285 96	
Distribution of above :			
General Administration.....		\$ 38,331 12	
Maintenance of Way and Structures.....		179,042 31	
Maintenance of Equipment.....		118,133 74	
Conducting Transportation.....		486,239 70	
Other Accounts (Labor on Construction work for other Divisions).....		133,539 09	

PASSENGER, FREIGHT AND TRAIN MILEAGE.

Item.	Column for Tonnage, Num- ber Passengers, Number Trains, Mileage, Number Cars.	COLUMN FOR REV- ENUE AND RATES.		
		Dollars.	Cts.	Mills.
Passenger Traffic :				
Number of passengers carried earning revenue.....	2,316,338			
Number of passengers carried one mile.....	35,413,058			
Average distance carried.....	15 ²⁸⁸ / ₁₀₀₀	850,271	84	
Total passenger revenue.....				
Average amount received from each passenger.....			36	706
Average receipts per passenger per mile.....			02	401
Estimated cost of carrying each passenger one mile.....			01	588
Passenger earnings per mile of road.....		4,827	16	
Passenger earnings per train mile.....		1	29	821
Freight Traffic :				
Number of tons carried of freight earning revenue....	2,147,871			
Number of tons carried one mile.....	111,929,737			
Average distance haul of one ton.....	52 ¹¹ / ₁₀₀	1,410,551	16	
Total Freight revenue.....				
Average amount received for each ton of freight.....			65	672
Average receipts per ton per mile.....			01	260
Estimated cost of carrying one ton one mile.....			00	838
Freight earnings per mile of road.....		7,238	79	
Freight earnings per train mile.....		2	73	864
Passenger and freight :				
Passenger and freight revenue.....		2,260,823	00	
Passenger and freight revenue per mile of road.....		11,602	29	
Expense per mile of road.....		7,703	34	
Total earnings per mile of road, including Mails, Express, etc.....		12,399	96	

PASSENGER, FREIGHT AND TRAIN MILEAGE.—Continued.

Item.	Column for Tonnage, Num- ber Passengers, Number Trains, Mileage, Number Cars.	COLUMN FOR REV- ENUE AND RATES.		
		Dollars.	Cts.	Mills.
Train Mileage :				
Miles run by passenger trains	704,792			
Miles run by freight trains...	455,780			
Miles run by mixed trains...	79,034			
Total Mileage Trains Earn- ing Revenue.....	1,239,606			
Miles run by construction and other trains.....	1,986			
Grand Total Train Mileage	1,241,592			
Mileage of loaded freight cars				
—North or East.....	5,461,807			
Mileage of loaded freight cars				
—South or West.....	4,468,751			
Mileage of empty freight cars				
—North or East.....	1,435,034			
Mileage of empty freight cars				
South or West.....	1,174,118			
Average number of freight cars in train.....	24			
Average number of loaded cars in train.....	19			
Average number of empty cars in train.....	5			
Average number of tons of freight in train.....	217 $\frac{31}{100}$			
Average number of tons of freight in each loaded car..	11 $\frac{27}{100}$			

FREIGHT TRAFFIC MOVEMENT.

Commodity.	Freight Originating on this Road. Whole Tons.	Freight Received From Con'ect'ng Roads and other Carriers. Whole Tons.	TOTAL FREIGHT TONNAGE.	
			Whole Tons.	Per Cent.
Products of Agriculture :				
Grain	41,941	28,302	70,243	03.27
Flour	9,828	13,985	23,813	01.11
Other Mill Products	10,588	7,457	18,045	00.84
Hay	11,702	8,726	20,428	00.95
Tobacco	609	242	851	00.04
Cotton	2,189	3,139	5,328	00.25
Fruit and Vegetables	32,026	2,301	34,327	01.60
Products of Animals :				
Live Stock	2,953	5,888	8,841	00.41
Dressed Meats	1,281	4,882	6,163	00.28
Other Packing-house Pro- ducts	17,084	2,097	19,181	00.89
Poultry, Game and Fish	357	418	775	00.04
Wool	1,228	1,543	2,771	00.13
Hides and Leather	2,339	5,065	7,404	00.34
Products of Mines :				
Anthracite Coal	1,033	597,131	598,164	27.85
Bituminous Coal	394	142,863	143,257	06.67
Coke	61	74,699	74,760	03.48
Ores	57	362,559	362,616	16.88
Stone, Sand, and other like Articles	112,064	27,108	139,172	06.48
Products of Forest :				
Lumber	30,591	102,020	132,611	06.17
Manufactures :				
Petroleum and other Oils	5,882	5,307	11,189	00.52
Sugar	6,276	832	7,108	00.33
Naval Stores	11	44	55	00.00
Iron, Pig and Bloom	491	37,449	37,940	01.77
Iron and Steel Rails	2,763	22,854	25,617	01.19
Other Castings and Ma- chinery	3,959	3,061	7,020	00.33
Bar and Sheet Metal	5,278	3,755	9,033	00.42
Cement, Brick and Lime	55,901	4,131	60,032	02.79
Agricultural Implements	481	465	946	00.04

FREIGHT TRAFFIC MOVEMENT.—Continued.

Commodity.	Freight Originating on this Road. Whole Tons.	Freight Received from Con'ect'ng Roads and other Carriers. Whole Tons.	TOTAL FREIGHT TONNAGE.	
			Whole Tons.	Per Cent.
Wagons, Carriages, Tools, etc.	661	816	1,477	00.07
Wines, Liquors and Beers	7,987	921	8,908	00.41
Household Goods and Fur- niture	2,744	2,243	4,987	00.23
Other Manufactured Arti- cles	93,314	47,513	140,827	06.56
Merchandise	11,890	4,967	16,857	00.79
Miscellaneous: Other com- modities not mentioned above	65,911	81,214	147,125	06.87
Total Tonnage	541,874	1,605,997	2,147,871	100.00

DESCRIPTION OF EQUIPMENT.

* Item.	Number Added During Year.	Total Number at End of Year.	EQUIPPED WITH TRAIN BRAKE.		CARS FITTED WITH AUTOMATIC COUPLER.	
			Number.	Kind.	Number.	Kind.
Locomotives:						
Passenger (1 new, 4 cut up).....	Cr. 3	48	48	Westinghouse		
Freight.....		20	2	"		
Switching.....		7				
Total.....	Cr. 3	75	50			
Cars in Passenger Service:						
First-class Passenger Cars.....	7	111	111	Westinghouse	111	Miller.
Second-class Passenger Cars.....		8	8	"	8	"
Baggage, Express and Postal Cars..	2	34	34	"	34	"
Total.....	9	153	153		153	
Cars in Freight Service:						
Box Cars.....		849				
Flat Cars.....		460				
Stock Cars.....		5				
Coal Cars.....		488				
Total.....		1,802				

DESCRIPTION OF EQUIPMENT—Continued.

Item.	Number Added During Year.	Total Number at End of Year.	EQUIPPED WITH TRAIN BRAKE.		CARS FITTED WITH AUTOMATIC COUPLER.	
			Number.	Kind.	Number.	Kind.
Cars in Company's Service :						
Derrick Cars.....		10				
Caboose Cars.....		24				
Other road Cars. (Including three Officers' Cars).....		5	3	Westinghouse.	3	Miller.
Total.....		39	3		3	
Total Owned.....	6	2,069				

MILEAGE.

Line in Use.	Line Operated Under Lease.	Total Mileage Operated.	New Line Con- structed During Year.	RAILS.	
				Iron.	Steel.
Miles of Single Track ..	194.86	194.86	.....	12.31	182.55
Miles of Second Track ..	38.49	38.49	.....	.....	38.49
Miles of Yard Track, Sidings and Spurs....	92.70	92.70	7.93	92.70	
Total Mileage Oper- ated (all tracks).....	326.05	326.05	7.93	105.01	221.04

MILEAGE OF LINE BY STATES AND TERRITORIES.

State or Territory.	Line Operated Under Lease.	Total Mileage, Excluding Trackage Rights.	RAILS.	
			Iron.	Steel.
New York	158.21	158.21	12.31	145.90
Vermont	36.65	36.65	.....	36.65
Total Mileage Operated (Single track).....	194.86	194.86	12.31	182.55

RENEWALS OF RAILS AND TIES.

NEW RAILS LAID DURING YEAR.

Kind.	Tons.	Weight Per Yard.	Average Price per Ton at Distribut- ing Point.	NEW TIES LAID DURING YEAR.		
				Kind.	Number.	Average Price at Distributing Point.
Iron, Repair.....	81.93	62 lbs.	\$25 00	White Oak.....	103,026	$\left\{ \begin{array}{l} .50 \\ .32 \\ .45 \\ .34 \end{array} \right.$
“.....	543.79	56 “	25 00	Red Oak.....		
Scrap.....	76.54	62 “	20 00	Chestnut.....		
“.....	32.97	56 “	20 00	Tamarac.....		
Total Iron.....	735.23		24 25			
Steel, New.....	1,012.76	67 lbs.	\$32 67			
“.....	17.71	62 “	35 00			
Repair.....	.59	67 “	25 00			
“.....	796.90	62 “	25 00			
Scrap.....	7.22	62 “	20 00			
Total Steel.....	1,835.18		29 30	Total.....	103,026	

CONSUMPTION OF FUEL BY LOCOMOTIVES.

Locomotives.	COAL—TONS.		WOOD—CORDS.	Total Fuel Consumed—Tons.	Miles Run.	Average Pounds Consumed Per Mile.
	Anthracite.	Bituminous.	Hard.			
Passenger ---					732,341	
Freight ---	61,547	3,203			628,772	
Switching ---					473,245	
Construction and Bal- last and Repairs.....	1,217	138	595 Cords.		38,231	
Total.....	62,764	3,341	397 Tons.	66,502	1,872,589	79.55
Average Cost at Distrib- uting Point.....	\$3 87	\$3 32	\$3 72			

ACCIDENTS TO PERSONS.

KIND OF ACCIDENT.	EMPLOYEES.						
	TRAINMEN.		SWITCHMEN, FLAGMEN AND WATCHMEN.		OTHER EMPLOYEES.		TOTAL.
	Killed.	Injured.	Killed.	Injured.	Injured.	Killed.	
Coupling and Uncoupling.....	1	13				1	13
Falling from Trains and Engines.....	1	3				1	3
Collisions.....		2			1		3
Other Train Accidents.....	2	2	1	2	1	3	5
At Highway Crossings.....			1			1	
Total.....	4	20	2	2	2	6	24
	OTHERS.						
	PASSENGERS.		TRESPASSERS.		NOT TRESPASSING.		TOTAL.
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	
Other Train Accidents.....	2	4		7		6	7
At Highway Crossings.....					1	6	6
At Stations.....		3		2		3	2
Total.....	2	7		9	1	6	15

CHARACTERISTICS OF ROAD.

ANNUAL RETURNS.

371

WORKING DIVISIONS OR BRANCHES.			ALIGNMENT.		PROFILE.			
From	To	Miles.	Number of Curves.	Aggregate Length of Curved Line. Miles.	Length of Straight Line. Miles.	ASCENDING GRADES.		
						Number.	Sum of Ascents. Feet.	Aggregate Length of Ascending Grades. Miles.
Albany	Lake Champlain.	79.14	106	20.04	59.10	45	658	29.20
West Troy	Green Island	1.08	3	0.59	0.49	1	6	0.21
Troy	Waterford Junct.	5.59	10	1.48	4.11	8	30	1.92
Schenectady	Ballston	14.97	13	3.80	11.17	7	87	8.67
Fort Edward	Caldwell	15.12	67	7.68	7.44	10	526	7.84
Whitehall	State Line	6.83	13	2.60	4.23	4	238	4.91
State Line	Castleton	6.83	11	1.84	4.99	8	126	3.68
Eagle Bridge	Rutland	62.44	64	13.80	48.64	28	811	28.50
Mechanicville	Stillwater	2.86	8	0.86	2.00	2	97	0.97
Total		194.86	295	52.69	142.17	113	2,511	85.40
						84	1,698	68.53
								Aggregate Length of Descending Grades. Miles.
								Sum of Descents. Feet.
								Number.

CHARACTERISTICS OF ROAD.—Continued.

Bridges :

Number Iron.....	96—149 Spans.
Number Wooden.....	16— 16 “

Trestles :

Number	7
Aggregate length.....	6,306 feet.

Tunnels :

Number	1
Aggregate length of all Tunnels	1,188 feet.

<i>Gauge of Track</i>	4 feet 8½ inches.
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Telegraph :

Owned by this Company.....	119.17 miles of line.
Owned by this Company.....	282.02 miles of wire.
Operated by this Company.....	166.73 miles of line.
Operated by this Company.....	329.58 miles of wire.

GENERAL INFORMATION.

This road has the use of the N. Y. C. & H. R. R. R. Passenger Station at Albany, N. Y., for its Local trains between Albany and Troy.

Terminal privileges at Rutland, Vt., of Station Houses and Tracks of the Central Vermont R. R., and Freight House and Tracks of the Bennington and Rutland R. R.

This road is a member of the East and West Fast Freight Line.

STATE OF NEW YORK, }
County of New York, } ss :

We, the undersigned, Robert M. Olyphant, President, and James C. Hartt, Treasurer, of the Delaware and Hudson Canal Company, on our oath do severally say that the foregoing return has been prepared, under our direction, from the original books, papers, and records of said Company: that we have carefully examined the same, and declare the same to be a complete and correct statement of the business and affairs of said Company in respect to each and every matter and thing therein set forth, to the best of our knowledge, information, and belief: and we further say that no deductions were made before stating the gross earnings or receipts herein set forth, except those shown in the foregoing accounts: and that the accounts and figures contained in the foregoing return embrace all of the financial operations of said Company during the period for which said return is made.

R. M. OLYPHANT, *President.*

JAMES C. HARTT, *Treasurer.*

Subscribed and sworn to before
me this 31st day of August,
1889.

F. M. OLYPHANT,

Notary Public,

N. Y. County.

ANNUAL REPORT OF THE FITCHBURG RAILROAD COMPANY,

FOR THE YEAR ENDING JUNE 30, 1889.

HISTORY.

Name of common carrier making this report: Fitchburg Railroad Company.

Date of organization: March 3, 1842.

Organized under the laws of Massachusetts.

The Fitchburg Railroad, chartered March 3, 1842, was completed between Cambridge and Fitchburg, March 5, 1845.

In 1848 the road was extended into Boston.

The Peterboro and Shirley Railroad was opened in 1850, leased for ten years and purchased in 1860.

The Vermont and Massachusetts Railroad was leased January 1, 1874, for a period of 999 years, the consideration being as follows:—

Organization Expenses.....	\$ 3,000 payable	quarterly.
5 per cent on \$1,000,000 Bonds....	50,000	Nov. and May.
6 per cent on 3,193,000 Stock	191,580	Oct. and April.

If this road is surrendered, the expenditures made by the lessee for additions and betterments are to be refunded to said lessee.

The Boston, Barre and Gardner Railroad was taken possession of under a temporary operating contract, March 7, 1885. It was merged July 1, 1885, its stock being exchanged in the proportion of ten shares of B. B. and G. stock for one (1) share of Fitchburg stock, and its liabilities being assumed by the Fitchburg Railroad Company.

The Ashburnham Railroad was purchased April 22, 1885.

The Troy and Greenfield Railroad and Hoosac Tunnel was consolidated with the Fitchburg Railroad Company, February 1, 1887, under the provisions of Chapter 297 of the Acts of the Commonwealth of Massachusetts for the year 1885.

The Hoosac Tunnel Dock and Elevator Company, an auxiliary corporation chartered under the laws of the Commonwealth of Massachusetts, April 29, 1879, owning wharves, elevator and warehouses and engaged in handling and storing freight, sold all its real and personal property of every kind and description to the Fitchburg Railroad Company, April 15, 1887.

The Troy and Boston Railroad Company, a corporation of the State of New York, was consolidated with the Fitchburg Railroad Company, May 3, 1887, under the laws of the State of New York and the Commonwealth of Massachusetts. By this consolidation the following leases in force with the Troy and Boston Railroad Company, were assumed:

Southern Vermont Railroad, New York State Line to Massachusetts State Line, owned by the Commonwealth of Massachusetts, leased in perpetuity to the Troy and Boston Railroad Company at an annual rental of \$12,000;

Troy and Bennington Railroad, Hoosac Junction to Vermont State Line, owned by the Troy and Bennington Railroad Company, a corporation of the State of New York, leased at an annual rental of \$15,400. Lease expires May 27, 1901.

The Boston, Hoosac Tunnel and Western Railway and its leased line, the Troy, Saratoga and Northern Railroad, were purchased June 1, 1887.

ORGANIZATION.

Names of Directors.	Post-office Address.	Date of Expiration of Term.
Elijah B. Phillips.....	Boston, Mass.	January 28, 1890.
Robert Codman.....	Boston, Mass.	
Rodney Wallace.....	Fitchburg, Mass.	
William H. Hollister.....	New York, N. Y.	
Charles T. Crocker.....	Fitchburg, Mass.	
John Quincy Adams.....	Quincy, Mass.	Appointed by the Governor of Massachusetts, and hold office one year.
David P. Kimball.....	Boston, "	
James Renfrew, Jr.....	Adams, "	
Augustus Kountze.....	New York, N. Y.	January 28, 1890.
Daniel Robinson.....	Troy, N. Y.	
Frederick L. Ames.....	Easton, Mass.	
George Heywood.....	Concord, Mass.	
W. S. Webb.....	New York, N. Y.	
Francis Smith.....	Rockland, Me.	

Total number of stockholders at date of last election: 4,109.

Date of last meeting of stockholders for election of directors: Jan. 29, 1889.

Post-office address of general office: Boston, Mass.

Post-office address of operating office: Boston, Mass.

OFFICERS.

President—E. B. Phillips, Boston, Mass.

Treasurer—Daniel A. Gleason, Boston, Mass.

Chief Engineer—E. K. Turner, Fitchburg, Mass.

General Solicitor, Attorney, or Counsel—Geo. A. Torrey, Boston Mass.

Auditor—C. S. Anthony, Boston, Mass.

General Traffic Manager—John Whitmore, Boston, Mass.

General Freight Agent—C. L. Hartwell, Boston, Mass.

General Passenger Agent—J. R. Watson, Boston, Mass.

General Superintendent—John Adams, Boston, Mass.

Division Superintendent—J. R. Hartwell, Boston, Mass.

Division Superintendent—J. F. Adams, Fitchburg, Mass.

Division Superintendent—H. A. Phillips, Worcester, Mass.

Division Superintendent—J. Crandell, Troy, N. Y.

Superintendent of Telegraph—E. A. Smith, Boston, Mass.

General Baggage Agent—Geo. F. Foye, Boston, Mass.

Purchasing Agent—Geo. J. Fisher, Boston, Mass.

PROPERTY OPERATED.

Name.	TERMINALS.		Miles of Line for Each Road Named.	Miles of Line for Each Class of Roads Named.
	From	To		
Fitchburg Railroad	Boston	Fitchburg	50	189.96
Troy, Greenfield R. R. & Hoosac Tunnel	Greenfield	Vermont State Line	44	
Troy & Boston Railroad	Vt. & N. Y. State Line	Troy	34.74	
Boston, Hoosac Tunnel & Western Ry.	Mass. and Vt. State Line	Rotterdam Jc. ...	61.22	
Fitchburg Railroad	Ice track in Boston		.68	109.09
Fitchburg Railroad, (Watertown Branch)	W. Cambridge ..	Roberts	8.26	
Fitchburg Railroad, (Marlboro Branch)	So. Acton	Marlboro	12.42	
Ashburnham R. R.	Ashburnham Jc.	Ashburnham ...	2.59	
Peterboro & Shirley Railroad	Ayer Jc.	Greenville, N.H.	23.62	
Boston, Barre and Gardner Railroad	Worcester	Winchendon ...	36.00	
Troy, Saratoga and Northern Railroad	Saratoga Jc.	Schuylerville & Saratoga	25.52	
Vermont and Massachusetts Railroad	Fitchburg	Greenfield	56	70.03
Southern Vermont Railroad	Mass. & Vt. State Line	N. Y. & Vt. State Line	6.19	
Vermont and Massachusetts Railroad	Turner's Falls Jc.	Turner's Falls ..	2.80	
Troy and Bennington Railroad	Hoosick Jct.	White Creek ...	5.04	
	Total			369.08

CAPITAL STOCK.

Description.	Par Value of Shares.	Total Par Value Authorized.	Total Amount Issued and Outstanding.
Capital Stock: Common	\$100	\$ 7,000,000	\$ 7,000,000
Preferred	100	13,775,100	13,525,100
Total		\$20,775,100	\$20,525,100

Manner of Payment for Capital Stock.	Number of Shares.	Total Cash Realized.
Issued for Cash: Preferred	54,994	\$ 5,499,400
Issued for Purchased Road: } Common	20,000	2,000,000*
} Preferred	35,805	3,580,500
Dock	15,125	1,512,500†
Issued for Consolidation : } Common ..	50,000	5,000,000††
} Preferred ..	17,622	1,762,200
" ..	10,833	1,083,300§
" ..	872	87,200§§
Total	205,251	\$20,525,100

* For purchase of Boston, Hoosac Tunnel and Western Railway per terms of agreement dated May 4, 1887.

† For purchase of Hoosac Tunnel Dock and Elevator.

†† In accordance with agreement with Commonwealth of Massachusetts for T. and G. R. R. and Hoosac Tunnel.

§ Troy and Boston Railroad Consolidation.

§§ Boston, Barre and Gardner Railroad Consolidation.

FUNDED DEBT.

Class of Bond or Obligation.	TIME.		Amount of Author- ized Issue.	Amount Issued.	Rate Per Cent.	When Payable.	INTEREST.	
	Date of Issue.	When Due.					Amount Accrued During Year.	Amount Paid During Year.
Fitchburg Railroad Bonds...	April 1, 1874	20 yrs.	\$ 500,000	\$ 500,000	7	April & Oct.	35,000	\$ 35,175
	Oct. 1, 1877	"	500,000	500,000	6	"	30,000	30,030
	" 1879	"	500,000	500,000	5	"	25,000	24,450
	" 1880	"	500,000	500,000	5	"	25,000	25,000
	" 1881	"	500,000	500,000	5	"	25,000	25,425
	April 1, 1882	"	500,000	500,000	5	"	25,000	25,000
	" 1883	"	500,000	500,000	5	"	25,000	25,000
	Mch. 1, 1884	"	500,000	500,000	4	Mch. & Sept.	20,000	19,980
	June 1, 1885	"	500,000	500,000	4	June & Dec.	20,000	20,240
	Feb. 1, 1887	50 yrs.	5,000,000	5,000,000	3	Feb. & Aug.	150,000	150,000
	April 1, " 20	"	1,500,000	1,500,000	4	April & Oct.	52,733 83	57,060
	Sept. 1, " 10	"	3,000,000	2,250,000	4½	Mch. & Sept.	97,200	100,372 50
	May 1, 1888	20 "	2,000,000	2,000,000	5	May & Nov.	100,000	94,900
	Mch. 1, 1889	10 "	750,000	750,000	5	Mch. & Sept.	12,500	6,429 50
B. B. & G. R. R. 1st M't'ge...	April 1, 1873	20 "		91,000	7	April & Oct.	6,391	14,995
" " 2d "	" " 20 "	"		299,700	5	"	14,985	5,799
" " 3d "	July, 1875	20 "		186,300	3	Jan. & July	5,589	8,438
B. H. T. & W. Ry. Debentures	" " 20 "	"		57,300	6	"	3,438	70,000
H. T. Dock & Elev. Co. M't'g'e	Sept. 1, 1883	30 "	2,000,000	1,400,000	5	Mch. & Sept.	70,000	20,000
Note	April 5, 1887	5 "		500,000	4	April & Oct.	20,000	
Total				\$18,534,000			\$762,836 33 *30	\$753,294

*Credit - Interest charged on Ashburnham Railroad Bonds in error June, 1888, and credited in July, 1888.

RECAPITULATION OF FUNDED DEBT.

Account.	Amount Issued.	INTEREST.	
		Amount Accrued During Year.	Amount Paid During Year.
Bonds	\$18,534,600	\$762,806 33	\$753,294
Total....	\$18,534,600	\$762,806 33	\$753,294

CURRENT ASSETS AND LIABILITIES.

Cash and Current Assets Available for Payment of Current Liabilities.

Cash	\$ 370,200 72
Bills Receivable	109,265 00
Due from Agents	420,443 89
Net Traffic Balance due from other Companies	295,370 56
Due from solvent Companies and individuals	143,845 60
Other Cash Assets*	546,876 00
Total	\$1,886,001 77

* Materials and supplies, on hand \$712,465.72.

Current Liabilities Accrued to and Including June 30, 1889.

Loans and Bills Payable	\$ 300,000 00
Audited Vouchers and Accounts	170,739 08
Wages and Salaries	63,309 42
Net Traffic Balances due to other Companies	394,931 87
Dividends not called for	6,202 40
Matured Interest Coupons Unpaid (including Coupons due July 1)	12,785 00
Rentals due July 1	23,408 32
Miscellaneous	116,317 12
Balance—Cash Assets	798,308 56
Total	\$1,886,001 87

RECAPITULATION.

A. FOR MILEAGE OWNED BY ROAD MAKING THIS REPORT.

Account.	Total Amount Outstand- ing.	APPORTIONMENT.		AMOUNT PER MILE OF ROAD.	
		To Railroads.	To Other Pro- priators.	Miles.	Amount.
Capital Stock.	\$20,522,100	\$19,012,600	\$1,512,500	299.05	\$63,576 66
Bonds.....	18,534,600	18,034,600	500,000	"	60,306 30
Total.....	\$39,059,700	\$37,047,200	\$2,012,500	299.05	\$123,882 96

B. FOR MILEAGE OPERATED BY ROAD MAKING THIS REPORT.

Name of Road.	Capital Stock.	Funded Debt.	Current Liabilities.
Fitchburg Railroad.....	\$20,525,100	\$18,534,600	\$1,087,693 21
Peterboro & Shirley R. R.			
Boston, Barre & Gardner Railroad.....			
Ashburnham Railroad....			
Troy & Greenfield R. R. & Hoosac Tunnel.....			
Troy & Boston Railroad..			
Boston, Hoosac Tunnel..	150,800	52,000	
& Western Rv.....			
Troy, Saratoga & North- ern Railroad.....			
Troy & Bennington Ry. Co.			
Vermont & Mass. R. R. Co.	3,193,000	1,000,000	
Southern Vermont R. R. owned by the Common- wealth of Massachusetts..			
Total.....	\$23,868,900	\$19,586,600	\$1,087,693 21

PERMANENT IMPROVEMENTS FOR THE YEAR.

Item.	Total Expenditures During the Year.	Differences or Net Additions to Property, Etc.
Construction:		
Right of Way.....	\$ 6,831 96	\$ 6,831 96
Other Real Estate.....		
Fences.....		
Buildings, Furniture and Fixtures.....	189,571 95	189,571 95
Shop Machinery and Tools.....	11,370 32	11,370 32
Sidings and Yard Extensions.....	69,942 16	69,942 16
Terminal Facilities and Elevators, including Docks.....	92,175 27	92,175 27
Purchase of Constructed Road.....	19,467 79	19,467 79
Other Items.....	208,264 44	208,264 44
Total Construction.....	\$597,623 89	\$597,623 89
Equipment:		
Locomotives and Steam Heating.....	17,606 14	17,606 14
Passenger Cars.....	20,562 44	20,562 44
Sleeping, Parlor & Dining Cars.....		
Baggage, Express & Postal Cars.....		
Combination Cars.....		
Freight Cars.....	206,936 14	206,936 14
Other Cars of all classes.....		
Floating Equipment.....		
Total Equipment.....	\$245,104 72	\$245,104 72
Graud Total Construction & Equipment.....	\$842,728 61	\$842,728 61

COST OF ROAD AND EQUIPMENT.

Item.	Total Cost to June 30, 1888.	Net Additions During Year.	Total Cost to June 30, 1889.
Construction:			
Right of Way.....	\$1,534,560 27	\$ 6,831 96	\$ 1,541,392 23
Other Real Estate.....			
Fences.....			
Grading and Bridge and Culvert Masonry.....	873,556 79		873,556 79

COST OF ROAD AND EQUIPMENT.—Continued.

Item.	Total Cost to June 30, 1888.	Net Addi- tions Dur- ing Year.	Total Cost to June 30, 1889.
Bridges and Trestles.....	\$ 463,202 19		\$ 463,202 19
Rails.....			
Ties.....	1,267,753 36		1,267,753 36
Other Superstructures..			
Buildings, Furniture and Fixtures.....	1,016,155 18	189,571 95	1,205,727 13
Shop Machinery and Tools	217,086 66	11,470 32	228,456 98
Engineering Expenses....	50,000 00		50,000 00
Sidings & Yard Extensions	222,068 22	69,942 16	292,010 38
Terminal Facilities & Ele- vators, including Docks.	2,131,468 05	92,175 27	2,223,643 32
Purchase of Constructed Road.....	24,076,542 90	19,467 79	24,096,010 69
Other Items.....	895,128 84	208,264 44	1,103,393 28
Total Construction.....	\$32,747,522 46	597,623 89	\$33,345,146 35
Equipment:			
Locomotives and Steam Heating.....	\$ 864,723 98	17,606 14	882,330 12
Passenger Cars.....			
Sleeping, Parlor & Dining Cars.....	517,811 42	20,562 44	538,373 86
Baggage, Express & Postal Cars.....			
Combination Cars.....			
Freight Cars.....			
Other Cars of all classes	1,912,256 87	206,936 14	2,119,193 01
Floating Equipment.....			
Total Equipment.....	\$ 3,294,792 27	\$245,104 72	\$ 3,539,896 99
Grand Total Cost Construc- tion and Equipment.....	\$36,042,314 73	\$842,728 61	\$36,885,043 34

INCOME ACCOUNT.

Gross Earnings from Operation.....	\$5,743,908 65	
Less Operating Expenses.....	4,263,080 30	
Income from Operation.....		\$1,480,828 35
Interest on Bonds Owned.....	4,077 00	
Income from Other Sources		4,077 00
Total Income.....		\$1,484,905 35

INCOME ACCOUNT.—Continued.

Deductions from Income:		
Interest on Funded Debt Accrued.....	\$762,806 33	
Rentals, including Tracks, Yards and Terminals.....	281,280 00	
Taxes.....	127,712 43	
Other Deductions.....	27,874 92	
Total Deductions from Income...		\$1,199,673 68
Net Income.....		\$285,231 67
Surplus from Operations of Year ending June 30, 1889.....		\$285,231 67
Surplus on June 30, 1888.....	\$16,981 52	
Less Claim against old Corporation, paid..	16,000 00	981 52
Surplus on June 30, 1889.....		\$286,213 19

EARNINGS FROM OPERATION.

Item.	Total Receipts.	Deductions Account of Repay- ments, Etc.	Actual Earnings.
Passenger:			
Passenger Revenue.....	\$1,733,309 92		
Less Repayments:			
Tickets Redeemed.....	}	\$20,424 14	
Excess Fares Refunded.....			
Other Repayments.....			
Total Deductions.....		\$20,424 14	
Total Passenger Revenue.....			\$1,712,885 78
Mail.....			43,697 16
Express.....			124,706 06
Other Items.....			30,444 61
Total Passenger Earnings.....			\$1,911,733 61
Freight:			
Freight Revenue.....	\$3,600,137 18		
Less Repayments:			
Other Repayments.....		\$91,856 31	
Total Deductions.....		\$91,856 31	
Total Freight Revenue.....			\$3,508,280 87

EARNINGS FROM OPERATION.—Continued.

Item.	Total Receipts.	Deductions Account of Repayments, Etc.	Actual Earnings.
Elevators and Docks.....			\$ 157,252 07
Other items.....			66,312 41
Total Freight Earnings.....			\$3,731,845 35
Total Passenger and Freight Earnings.....			\$5,643,578 96
Other Earnings from Operation:			
Rentals not otherwise provided for.....			100,329 69
Total Other Earnings.....			\$ 100,329 69
Total Gross Earnings from Operation.....			\$5,743,908 65

BONDS OWNED.

Name.	Total Amount Held.	Rate.	Income or Interest Received.
Lancaster Railroad Co.....	\$ 26,420 53		
Boston, Barre & Gardner R. R. Co..	90,600 00	*03	\$4,077 00
Total.....	\$117,020 53		\$4,077 00

*One and one-half years interest credited in this year.

STOCKS OWNED.

Name.	Total Par Value.
Boston, Hoosac Tunnel & Western Ry. Co.....	\$5,934,000 00
Troy, Saratoga & Northern Railroad Co.....	726,600 00

For the above we have given 35,835 shares F. R. R. Preferred Stock and 20,000 F. R. R. Common Stock. The value of this stock is included in the balance sheet as "Cost of Road."

RENTALS RECEIVED.

Designation of Property.	Situation of Property Leased.	Name of Company Using Property Leased.	Item.	Total.
	Fitchburg and Ashburnham Jc.	Cheshire R'd Co.	\$51,000	
	Shelburne Falls & Conway Jc.	N. Y., N. H. & H. R. Co.	7,500	
Total				\$ 58,500 00
Sundry lands, Tenements and Portions of Station buildings				41,829 69
Grand Total Rentals Received				\$100,329 69

OPERATING EXPENSES.

Item.	Chargeable to Passenger Traffic.	Chargeable to Freight Traffic.	Total.
Maintenance of Way and Structures:			
Repairs of Roadway	\$227,368 44	\$ 252,818 33	\$ 480,186 77
Renewals of Rails	44,324 32	49,285 64	93,609 96
Renewals of Ties	64,274 05	71,468 39	135,742 44
Repairs of Bridges and Culverts	23,643 00	26,289 42	49,932 42
Repairs of Fences, Road-crossings, Signs, and Cattle-guards	41,563 75	46,216 09	87,779 84
Repairs of Buildings	18,040 75	20,060 09	38,100 84
Repairs of Docks & Wharves	34,151 57	37,974 24	72,125 81
Repairs of Telegraph	973 00	1,081 90	2,054 90
Other Expenses	130 00	144 55	274 55
Total	\$454,468 88	\$ 505,338 65	\$ 959,807 53
Maintenance of Equipment:			
Repairs and Renewals of Locomotives	\$85,541 77	\$ 153,701 14	\$ 239,242 91

OPERATING EXPENSES.—Continued.

Item.	Chargeable to Passenger Traffic.	Chargeable to Freight Traffic.	Total.
Repairs and Renewals of Passenger Cars.....	\$80,030 28		\$ 80,030 28
Repairs and Renewals of Freight Cars.....		\$ 222,950 46	222,950 46
Shop Machinery, Tools, etc.	10,338 62	11,495 85	21,834 47
Other Expenses.....	672 18	747 42	1,419 60
Total.....	\$176,582 85	\$ 388,894 87	\$ 565,477 72
Conducting Transportation:			
Wages of Enginemen, Fire- men, and Round-housemen	\$176,468 24	\$ 279,158 28	\$ 455,626 52
Fuel for Locomotives....	205,529 10	332,284 67	537,813 77
Water-supply for Locomo- tives.....	11,150 21	12,398 28	23,548 49
All other Supplies for Loco- motives.....	11,913 55	13,247 06	25,160 61
Wages of other Trainmen....	133,039 32	211,852 74	344,892 06
All other train Supplies....	19,238 96	20,284 95	39,523 91
Wages of Switchmen, Flag- men, and Watchmen.....	41,517 59	178,461 53	219,979 12
Expenses of Telegraph, in- cluding Train Dispatchers and Operators.....	26,210 57	29,144 39	55,354 96
Wages of Station Agents, Clerks, and Laborers.....	71,221 65	285,693 68	356,915 33
Station Supplies.....	27,280 08	12,402 47	39,682 55
Car Mileage—Balance.....	23,221 80	85,407 03	108,628 83
Loss and Damage.....	2,282 16	12,105 81	14,387 97
Injuries to Persons.....	26,647 24	23,252 85	49,900 09
Watching Locomotives.....	6,705 67	8,064 57	14,770 24
Cleaning Cars.....	19,937 16		19,937 16
Total.....	\$808,266 46	\$1,510,322 22	\$2,318,588 68
General Expenses:			
Salaries of Officers.....	\$ 54,277 58	\$ 82,732 92	\$ 137,010 50
Salaries of Clerks.....			
General Office Expenses and Supplies.....	6,103 76	8,067 61	14,171 37
Agencies, including Salaries and Rent.....	5,427 15		5,427 15
Advertising.....	16,962 73		16,962 73
Insurance.....	14,696 58	16,341 60	31,038 18
Expense of Fast Freight Lines, and Traffic Asso- ciations.....		50,177 17	50,177 17

OPERATING EXPENSES.—Continued.

Item.	Chargeable to Passenger Traffic.	Chargeable to Freight Traffic.	Total.
Expense of Stock Yards and Elevators.....		\$ 83,138 64	\$ 83,138 64
Legal Expenses.....	\$ 12,097 04	13,451 09	25,548 13
Stationery and Printing.....	18,237 17	23,092 80	41,329 97
Other General Expenses.....	6,819 60	7,582 93	14,402 53
Total.....	\$ 134,621 61	\$ 284,584 76	\$ 419,206 37
Recapitulation of Expenses:			
Maintenance of Way and Structures.....	\$ 454,468 88	\$ 505,338 65	\$ 959,807 53
Maintenance of Equipment.....	176,582 85	388,894 87	565,477 72
Conducting Transportation.....	808,266 46	1,510,322 22	2,318,588 68
General Expenses.....	134,621 61	284,584 76	419,206 37
Grand Total.....	\$1,573,939 80	\$2,689,140 50	\$4,263,080 30
Percentage of Operating Ex- penses to Earnings.....	74.219%		

RENTALS PAID.

Name of Road.	Interest on Bonds Guaranteed.	Dividends on Stock Guaranteed.	Cash.	Total.
Vermont and Massa- chusetts Railroad...	\$50,000	\$191,580	\$ 3,000	\$244,580
Boston & Albany R'd			5,100	5,100
Boston & Maine R'd...			3,600	3,600
Cheshire Railroad...			600	600
Southern Vt. R'd....			12,000	12,000
Troy & Bennington Railway.....			15,400	15,400
Total Rentals....	\$50,000	\$191,580	\$39,700	\$281,280

GENERAL BALANCE SHEET.

Cost of Road.....	\$33,345,146 35	Capital Stock.....	\$20,775,100 00
Cost of Equipment.....	3,539,896 99	Funded Debt.....	18,534,600 00
Bonds of other Companies Owned.....	117,020 55	Current Liabilities.....	1,087,693 21
Vt. & M. Imp.....	1,482,677 94	Accrued Interest on Funded Debt not yet payable.....	229,927 33
Cash and Current Assets.....	1,886,001 77	Accrued Taxes not yet payable.....	105,030 59
Other Assets:		Accrued Rent of Roads not yet payable.....	64,645 00
Materials and Supplies.....	712,465 72	Profit and Loss.....	286,213 19
Total.....	\$41,083,209 32	Total.....	\$41,083,209 32

CASH STATEMENT OF FINANCIAL OPERATIONS FOR THE YEAR.

Resources to Account For.	Item.	Total.
Net Income:		
From Operation.....	\$1,484,905 35	
Total.....		\$1,484,905 35
Increase in Liabilities:		
Sale of Bonds.....	\$ 250,000 00	
Total.....		\$ 250,000 00
Decrease in Assets:		
Cash on Hand.....	\$ 291,821 77	
Other Assets.....	661,826 45	
Total.....		\$ 953,648 22
Grand Total.....		\$2,688,553 57

CASH STATEMENT OF FINANCIAL OPERATIONS FOR THE
YEAR.—Continued.

Resources Accounted For.	Item.	Total.
Fixed Charges:		
Interest on Funded Debt.....	\$762,806 33	
Rentals	281,280 00	
Taxes	127,712 43	
Total.....		\$1,171,798 76
Betterments to Property:		
Other Permanent Improvements*.....	\$ 597,623 89	
Additional Equipment*	245,104 72	
Vermont & Mass R. R. Imp.....	23,850 49	
Total		\$ 866,579 10
Decrease in Liabilities:		
Decrease in Current Liabilities.....	\$576,879 99	
Total.....		\$ 576,879 99
Increase in Assets:		
Cash Assets.....	\$ 45,420 80	
Total.....		\$ 45,420 80
Miscellaneous:		
Discount on Bonds Sold.....	\$ 27,874 92	
Total.....		\$ 27,874 92
Grand Total		\$2,688,553 57

*Not charged to Operating Expenses.

IMPORTANT CHANGES DURING THE YEAR.

New Bonds Issued—Authorized by vote of the Directors, April 11, 1889, in pursuance of authority from the Stockholders by vote passed at a special meeting held Aug. 12, 1887, Currency bonds of \$1,000 each, to the amount of \$750,000, dated March 1, 1889, payable in ten years from their date with interest at 5 per cent per annum, payable semi-annually. To provide for the item of "Funded Debt Liability account Troy and Boston Railroad" shown on the report for 1888.

CONTRACTS, AGREEMENTS, ETC.

The American Express Company and the National Express Company operate over this road.

Mails are carried at certain rates per mile, based on weight as established by the Post-office Department.

Cars of Pullman Palace Car Company and of the Wagner Palace Car Company run over this road.

The Cheshire Railroad Company run its trains between Ashburnham Junction and Fitchburg for which it pays \$51,000 per annum.

The Greenwich and Johnsonville Railway Company for the interchange of Passengers and Freight.

Western Union Telegraph Company.

SECURITY FOR FUNDED DEBT.

Class of Bond or Obligation.	WHAT ROAD MORTGAGED.		
	From	To	Miles.
B., B. & G. R. R. First M't'ge 7 per cent.....	Worcester.	Winchendon.	36
B., B. & G. R. R. First M't'ge 5 per cent.....	"	"	"
B., B. & G. R. R. Second M't'ge.....	"	"	"
" Third " 	"	"	"

Hoosac Tunnel Dock and Elevator Company's mortgage note, Wharves, Elevator and Warehouses in Charlestown.

EMPLOYES AND SALARIES.

Class.	Number.	Total Yearly Compensation.	Average Daily Compensation.
General Officers.....	21	\$ 70,206 47	
General Office Clerks.....	110	70,970 99	\$2 07
Station Agents.....	111	66,849 06	1 93
Other Station Men.....	421	229,120 09	1 74
Enginemen.....	225	243,781 87	3 47
Firemen.....	230	152,019 06	2 12
Conductors.....	171	142,920 84	2 68
Other Trainmen.....	522	299,695 99	1 84

EMPLOYES AND SALARIES.—Continued.

Class.	Number.	Total Yearly Compensation.	Average Daily Compensation.
Machinists	156	\$ 100,070 49	\$2 06
Carpenters	260	169,039 60	2 08
Other Shopmen	251	144,693 98	1 85
Section Foremen	80	58,092 49	2 33
Other Trackmen	751	347,359 60	1 48
Switchmen, Flagmen, and Watchmen	219	92,232 40	1 35
Telegraph Operators and Dispatchers	93	48,218 10	1 66
All other Employes and Laborers	960	567,318 03	1 89
Total per Pay Roll	4,560	\$2,732,382 59	1 92
Grand Total	4,581	\$2,802,589 06	

PASSENGER, FREIGHT, AND TRAIN MILEAGE.

Item.	Column for Tonnage, Number Passengers, Number Trains, Mileage, Number Cars.	COLUMN FOR REVENUE AND RATES.		
		Dollars.	Cts.	Mills.
Passenger Traffic:				
Number of passengers carried earning revenue	5,755,475½			
Number of passengers carried one mile	87,501,326			
Average distance carried	15.20			
Total passenger revenue		\$1,712,885	78	
Average amount received from each passenger			29	76
Average receipts per passenger per mile			01	96
Estimated cost of carrying each passenger one mile			01	799
Passenger earnings per mile of road		4,640	96	
Passenger earnings per train-mile			86	91

PASSENGER, FREIGHT, AND TRAIN MILEAGE.—Continued.

Item.	Column for Ton- nage, Number Passengers, Number Trains, Mileage, Num- ber Cars.	COLUMN FOR REVENUE AND RATES.		
		Dollars.	Cts.	Mills.
Freight Traffic:				
Number of tons carried of freight earning revenue	3,448,160			
Number of tons carried one mile	345,656,424			
Average distance haul of one ton	100.2437			
Total freight revenue		\$3,508,280	87	
Average amount received for each ton of freight		1	01	744
Average receipts per ton per mile			01	015
Estimated cost of carrying one ton one mile			00	777
Freight earnings per mile of road		9,505	47	
Freight earnings per train- mile		1	00	09
Passenger and Freight:				
Passenger and freight earnings		5,221,166	65	
Passenger and freight earnings per mile of road		14,146	43	
Expense per mile of road		11,550	56	
Total earnings per mile of road, including Mails, Express, etc.		15,562	77	
Train Mileage:				
Miles run by passenger trains	1,970,831			
Miles run by freight trains	2,191,426			
Total Mileage Trains Earning Revenue	4,162,257			
Miles run by switching trains	1,145,281			
Miles run by construction and other trains	103,054			
Grand Total Train Mileage	5,410,592			
Mileage of loaded freight cars—East	22,796,835			
Mileage of loaded freight cars—West	11,258,216			
Mileage of empty freight cars—East	758,912			
Mileage of empty freight cars—West	12,454,578			

FREIGHT TRAFFIC MOVEMENT.

Commodity.	Freight Originat- ing on this Road. Whole Tons.	Freight Received from Con'ect'g Roads and other Carriers. Whole Tons.	TOTAL FREIGHT TONNAGE.	
			Whole Tons.	Per Cent.
Products of Agriculture:				
Grain.....	18,317	287,170	305,487	08.86
Flour.....	11,431	165,462	176,893	05.13
Other Mill Products.....	10,222	77,131	87,353	02.53
Hay.....	7,535	59,380	66,915	01.94
Tobacco.....	160	1,904	2,064	00.06
Cotton.....	2,276	68,201	70,477	02.04
Fruit and Vegetables.....	35,255	60,369	95,624	02.77
Various.....	10,496	8,859	19,355	00.56
Products of Animals:				
Live Stock.....	47,877	93,478	141,355	04.10
Dressed Meats.....	2,943	56,432	59,375	01.73
Other Packing-house Pro- ducts.....	12,981	20,838	33,819	00.98
Poultry, Game, and Fish.....	8,095	2,227	10,322	00.30
Wool.....	4,251	12,701	16,952	00.49
Hides and Leather.....	6,228	24,489	30,717	00.89
Refrigerator Car Freight.....	1,761	9,550	11,311	00.33
Products of Mines:				
Anthracite Coal.....		347,870	347,870	10.09
Bituminous Coal.....		173,935	173,935	05.05
Coke.....	255	8,709	8,964	00.26
Ores.....	25,922	6,602	32,524	00.94
Stone, Sand, and other like Articles.....	36,308	63,995	100,303	02.91
Salt.....	1,973	35,855	37,828	01.10
Products of Forest:				
Lumber.....	92,353	236,874	329,227	09.55
Manufactures:				
Petroleum and other Oils.....	13,668	22,061	35,729	01.04
Sugar.....	23,554	5,603	29,157	00.85
Naval Stores.....	754	519	1,273	00.04
Iron, Pig and Bloom.....	40,097	64,200	104,297	03.00
Iron and Steel Rails.....	14	15,325	15,339	00.45

FREIGHT TRAFFIC MOVEMENT.—Continued.

Commodity.	Freight Originat- ing on this Road. Whole Tons.	Freight Received from Con'ect'ng Roads and other Carriers. Whole Tons.	TOTAL FREIGHT TONNAGE.	
			Whole Tons.	Per Cent.
Other Castings and Ma- chinery	2,286	10,348	12,634	00.37
Bar and Sheet Metal	14,895	26,748	41,643	01.21
Cement, Brick, and Lime ..	34,310	29,490	63,800	01.85
Agricultural Implements ..	530	1,583	2,113	00.06
Wagons, Carriages, Tools, etc.	648	2,793	3,441	00.10
Wines, Liquors, and Beers ..	2,602	8,132	10,734	00.31
Household Goods and Fur- niture	7,992	15,029	23,021	00.67
Soda, Ash	1,742	16,999	18,741	00.54
Merchandise	201,237	198,637	399,874	11.60
Miscellaneous: Other com- modities not mentioned above	326,011	201,683	527,694	15.30
Total Tonnage	1,006,979	2,441,181	3,448,160	100.00

DESCRIPTION OF EQUIPMENT.

Item.	Number Added During Year.	Total Number at End of Year.	EQUIPPED WITH TRAIN BRAKE.		CARS FITTED WITH AUTOMATIC COUPLER.	
			Number.	Kind.	Number.	Kind.
Locomotives:						
Passenger.....	2	97	97	Westinghouse.		
Freight.....		52	32	"		
Switching.....	1	30				
Decrease.....						
Total Decrease.....	3	179	129			
Cars in Passenger Service:						
First-class Passenger Cars.....	6	158	158	Westinghouse.	158	Miller hook.
Combination Passenger Cars.....		26	26	"	26	"
Baggage, Express, and Postal Cars.....	7	46	46	"	46	"
Other Cars in Passenger Service.....	1	2	2	"	2	"
Total.....	14	232	232		232	
Cars in Freight Service:						
Box Cars.....	320	3,941	446	Westinghouse.	10	Cowells.
Flat Cars.....	10	725	49	"	99	Dowling.
Stock Cars.....	48	202				
Coal Cars.....	42	696				

DESCRIPTION OF EQUIPMENT—Continued.

Item.	Number Added During Year.	Total Number at End of Year.	EQUIPPED WITH TRAIN BRAKE.		CARS FITTED WITH AUTOMATIC COUPLER.	
			Number.	Kind.	Number.	Kind.
Other Cars	99½	80½	8	Westinghouse.		
Total	320½	5,644½	503		109	
Cars in Company's Service:						
Gravel Cars	22	199				
Derrick Cars	9	16				
Caboose Cars	10	82	7	Westinghouse.		
Other Road Cars	1	19				
Total	22	316	7			
Cars Contributed to Fast Freight Line Service:	348	1,477	482		99	Dowling.
Grand Total	312½	6,192½	742		841	

MILEAGE.

Line in Use.	Main Line Owned.	Branch Line Owned.	Line Operated under Lease.	Total Mileage Operated.
Miles of single track	189.96	109.09	70.03	369.08
Miles of second track	100.56	.68	56	157.24
Miles of third track	1.66			1.66
Miles of yard track, sidings, and spurs, main line and branches	185.48		28.10	213.58
Total Mileage Operated (all tracks)	(185.48) 292.18	109.77	154.13	741.56

MILEAGE OF LINE BY STATES AND TERRITORIES.

State or Territory.	Main Line Owned.	Branch Line Owned.	Line Operated under Lease.	Total Mileage, Excluding Track-age Rights.	RAILS.	
					Iron.	Steel.
Massachusetts	94	74.10	58.80	226.90		All.
New Hampshire		9.47		9.47	4	5.47
Vermont	6.49		6.19	12.68		All.
New York	89.47	25.52	5.04	120.03		All.
Total Mileage Operated (single track)	189.96	109.09	70.03	369.08		

RENEWALS OF RAILS AND TIES.

NEW RAILS LAID DURING YEAR.				NEW TIES LAID DURING YEAR.		
Kind.	Tons.	Weight per Yard.	Average Price per Ton at Distributing Point.	Kind.	Number	Average Price at Distributing Point.
Steel	6,871	76 lbs.	\$29 00	Mostly Chestnut.	301,419	.42
Total Steel.	6,871	76 lbs.	\$29 00	Total,	301,419	.42

CONSUMPTION OF FUEL BY LOCOMOTIVES.

Locomotives.	COAL—TONS.		WOOD—CORDS.		Total Fuel Consumed—Tons.	Miles Run.	Average Pounds Consumed Per Mile.
	Anthracite.	Bituminous. (Including Coke.)	Hard.				
Passenger		57,821.95	283,057		58,010.65	1,970,831	65.93
Freight		64,279.24	314,856		64,489.14	2,191,426	65.92
Switching	453.95	33,753.94	165,335		34,518.12	1,145,281	67.12
Construction		2,935.13	14,577		2,944.72	294,472	64.64
Snow		26.44			26.44	1,014	58.40
Total	453.95	158,816.70	777,625		159,789.07	5,410,592	66.12
Average Cost at distributing Point	\$4 15	\$3 11	\$4 30		\$3 12		

ACCIDENTS TO PERSONS.

Kind of Accident.	EMPLOYEES.							
	TRAINMEN.		SWITCHMEN, FLAGMEN, AND WATCHMEN.		OTHER EMPLOYEES.		TOTAL.	
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
Coupling and Uncoupling.....	1	28	1	20		2	2	50
Falling from Trains and Engines.....	7	11	1	5			8	16
Collisions.....		3						3
Other Train Accidents.....	2	6			2	7	4	13
Other Causes.....		1	1	4	1	2	2	7
Total.....	10	49	3	29	3	11	16	89
	OTHERS.							
	PASSENGERS.		TRESPASSERS.		NOT TRESPASSING.		TOTAL.	
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
At Highway Crossings.....					6	10	6	10
At Stations.....	1	5					1	5
Other Causes.....		1	23	13			23	14
Total.....	1	6	23	13	6	10	30	29

CHARACTERISTICS OF ROAD.

WORKING DIVISIONS OR BRANCHES.			ALIGNMENT.			PROFILE.						
From	To	Miles.	Number of Curves.	Aggre- gate Length of Curved Line.	Length of Straight Line.	Length of Level Line.	ASCENDING GRADES.			DESCENDING GRADES.		
				Miles.	Miles.		Number.	Sum of Ascents. Feet.	Aggre- gate Length of Ascend- ing Grades. Miles.	Number.	Sum of De- scents. Feet.	Aggre- gate Length of De- scend- ing Grades. Miles.
Boston	Fitchburg	49.60	68	15.43	34.17	6.1	14	706	28	15	284	15.5
Fitchburg	Greenfield	55.67	100	27.54	28.13	6.5	8	763	17.2	12	995	31.9
Watertown Jc.	Waltham	6.60	19	3.65	2.95	1	8	88	3.2	6	53	2.4
So. Acton	Marlboro	12.40	22	5.62	6.78							
Ayer	Greenville	23.53	52	9.78	13.75	4	12	687	16.1	10	90	3.4
Ashburnham Jc.	Ashburnham	2.59	11	1.33	1.26	.5	4	44	.8	6	66	1.2
Turner's Falls Jc.	Turner's Falls	2.90	4	.83	2.07	.5	4	27	1.3	4	16	.8
Greenfield	State Line, Vt.	44.10	103	18.24	25.86	3.6	4	726.7	27	4	344.4	13.5
State Line	Troy	40.38	51	11.45	28.93	8.3	8	142	5.8	8	673	24.58
State Line	Johnsonville east bound	25.80	48	7.15	18.65	7.4	8	88	3.4	8	305	15
Johnsonville	Rotterdam	35.50	53	13.02	22.48	3.4	5	333	12.6	5	405	19.5
Saratoga Jc.	Saratoga	17.60	24	6.59	11.01	2.4	4	345	10	4	182	5.2
Schuyler Jc.	Schuylerville	8.20	15	3.73	4.47	1.8	4	44	1.9	4	9.4	4.5
Hoosick Jc.	State Line, Vt.	5.10	11	2.74	2.39	.7	1	167	4.3			
Worcester	Winchendon	36	117	17.35	18.65	4.4	19	923	21	20	412	10.6
Total		365.97	698	144.45	221.45	50.6	103	5,083.7	152.6	106	3,834.8	148.08

CHARACTERISTICS OF ROAD.—Continued.

Bridges: 25 feet and upward.

Number Stone.....	1
Number Iron.....	145
Number Wooden.....	35

Trestles:

Number.....	20
Aggregate length.....	7,390 feet.

Tunnels:

Number.....	2
Maximum length.....	25,081 feet
Minimum length.....	418 "
Aggregate length of all Tunnels.....	25,499 "

*Gauge of Track: 4 feet 9 inches.**Telegraph:*

Owned by this Company.....	130 $\frac{78}{100}$ miles of line.
Owned by this Company.....	335 $\frac{10}{100}$ miles of wire.
Operated by this Company.....	130 $\frac{78}{100}$ miles of line.
Operated by this Company.....	335 $\frac{10}{100}$ miles of wire.

QUESTIONS FOR GENERAL INFORMATION.

This road pays rentals for terminal facilities, etc., as follows :

Mechanicville, Delaware and Hudson Canal Company.

Worcester, Boston and Albany Railroad Company.

Winchendon, Cheshire Railroad Company.

This road is a party to the following associations, whose object is the Regulation or Control of Passenger or Freight Traffic:

New England Railroad Presidents' Association.

Trunk Line Association.

Joint Committee.

The following Fast Freight Lines operate over the line of this road:

West Shore Line.	Erie and Boston Line,
Hoosac Tunnel Line,	West Shore and Boston Line,
Nickel Plate Line.	Lackawanna and Boston Line,
South-west Despatch,	Lehigh Valley and Boston Line,
Lackawanna Line,	Philadelphia and Boston Line,
Great Eastern Line,	National Despatch Fast Freight Line.
Erie Despatch.	Rome, Watertown and Ogdensburg Line.
Interstate Despatch,	Canada Atlantic Fast Freight Line.
Trader's Despatch.	

STATE OF MASSACHUSETTS, }
County of Suffolk, } ss.

We, the undersigned, E. B. Phillips, President, and C. S. Anthony, Auditor, of the Fitchburg Railroad Company, on our oath do severally say that the foregoing return has been prepared, under our direction, from the original books, papers, and records of said Company; that we have carefully examined the same, and declare the same to be a complete and correct statement of the business and affairs of said Company in respect to each and every matter and thing therein set forth, to the best of our knowledge, information, and belief; and we further say that no deductions were made before stating the gross earnings or receipts herein set forth, except those shown in the foregoing accounts; and that the accounts and figures contained in the foregoing return embrace all of the financial operations of said Company during the period for which said return is made.

E. B. PHILLIPS, *President*.

C. S. ANTHONY, *Auditor*.

Subscribed and sworn to before me,
this 13th day of September, 1889.

THOMAS WHITTEMORE,

Notary Public.

ANNUAL REPORT
OF THE
HOOSAC TUNNEL & WILMINGTON RAILROAD,
FOR THE YEAR ENDING JUNE 30, 1889.

HISTORY.

Name of common carrier making this report : Hoosac Tunnel & Wilmington Railroad Company.

Date of Organization : December 28, 1886.

Organized under the laws of Massachusetts.

ORGANIZATION.

Name of Directors.	Post-office Address.	Date of Expiration of Term.
Daniel H. Newton.....	Holyoke, Mass.....	May 3, 1890.
Moses Newton.....	" ".....	
John C. Newton.....	" ".....	
James Ramage.....	" ".....	
Geo. W. Millar.....	" ".....	

Total number of stockholders at date of last election : 6.

Date of last meeting of stockholders for election of directors : May 3, 1889.

Post-office address of general office : Holyoke, Mass.

Post-office address of operating office : Readsboro, Vt.

OFFICERS.

President—Daniel H. Newton, Holyoke, Mass.

Vice-President—James Ramage, Holyoke, Mass.

Secretary—Ernest P. Cox, Holyoke, Mass.

Treasurer—John C. Newton, Holyoke, Mass.

Auditor—Moses Newton, Holyoke, Mass.

General Superintendent—Moses Newton, Holyoke, Mass.

PROPERTY OPERATED.

Name.	TERMINALS.		Miles of Line for Each Road Named.
	From	To	
Hoosac Tunnel & Wilmington.....	Hoosac Tunnel, Mass.....	State Line.....	8
Deerfield River Co's Railroad.....	State Line.....	Readsboro, Vt..	3

Total mileage operated, 11 miles.

CAPITAL STOCK.

Description.	Par Value of Shares.	Total Par Value Authorized.	Total Amount Issued and Outstanding.
Capital Stock : Common.	\$100 00	\$50,000 00	\$50,000 00
Total.....	\$100 00	\$50,000 00	\$50,000 00
Manner of Payment for Capital Stock.		Number of Shares.	Total Cash Realized.
Issued for Cash : Common.....		500	\$50,000 00
Total.....		500	\$50,000 00

CURRENT ASSETS AND LIABILITIES.

Cash and Current Assets Available for Payment of Current Liabilities.	Current Liabilities Accrued to and Including June 30, 1889.
	Loans and bills payable \$45,000 00
	Audited Vouchers and Accounts 14,367 60
	Miscellaneous Interest unpaid 5,059 82
Balance—Current Liabilities..... \$64,427 42	
Total \$64,427 42	Total..... \$64,427 42

RECAPITULATION.

For Mileage Owned by Road Making this Report.

Account.	Total Amount Outstanding.	Apportionm't to Railroads.	Miles.	Amount per Mile of Road
Capital Stock....	\$50,000 00	\$50,000 00	8	\$6,250 00
Total.....	\$50,000 00	\$50,000 00	8	\$6,250 00

For Mileage Operated by Road Making this Report (Trackage Rights excluded), the Operations of which are included in the Income Account.

Name of Road.	Capital Stock.	Current Liabilities	Total.	Miles.	Amount per Mile.
Hoosac Tunnel & Wilmington...	\$50,000 00	\$64,427 42	\$114,427 42	11	\$10,402 49
Grand Total....	\$50,000 00	\$64,427 42	\$114,427 42	11	\$10,402 49

PERMANENT IMPROVEMENTS FOR THE YEAR.

Item.	Total Expenditures.	Differences or Net Additions to Property Etc.
Grading and Bridge and Culvert Masonry.....	\$8,119 99	\$8,119 99
Total Construction.....	\$8,119 99	\$8,119 99

COST OF ROAD AND EQUIPMENT.

Item.	Total Cost to June 30, 1888.	Net Additions During Year.	Total Cost to June 30, 1889.	Cost per Mile.
Total Construction..	\$101,247 61	\$8,119 99	\$109,367 60	\$13,670 93

Equipment is leased and kept in repair by the owners,

INCOME ACCOUNT.

Gross Earnings from Operation.....	\$16,149 43
Less Operating Expenses.....	11,957 64
Income from Operation.....	\$4,191 79
Total Income.....	\$4,191 79

INCOME ACCOUNT.—Continued.

Deductions from Income :

Interest on Floating Debt Accrued during Year.....	\$2,792 35	
Taxes.....	122 38	
Rentals { Deerfield River Com- pany's Railroad... \$ 455 30 Rolling Stock..... 2,400 00	<u>2,855 30</u>	
Total Deductions from Income.....		\$5,770 03
Deficit.....		\$1,578 24
Deficit from Operations of Year ending June 30, 1889.....	1,578 24	
Deficit on June 30, 1888.....	\$2,356 58	
Error, 6 months' interest on \$45,000 at 5 per cent, Dec. 31, 1887, to June 30, 1888, not included in previous report.....	<u>1,125 00</u>	
Deficit on June 30, 1889.....	3,481 58	5,059 82

EARNINGS FROM OPERATION.

Item.	Total Receipts.	Actual Earnings
Passenger Revenue.....	\$3,141 79	
Total Passenger Revenue.....		\$3,141 79
Mail.....	493 88	
Express.....	<u>275 68</u>	769 56
Total Passenger Earnings.....		<u>\$3,911 35</u>
Freight Revenue.....	<u>12,238 08</u>	
Total Freight Revenue.....		\$12,238 08
Total Freight Earnings.....		<u>\$12,238 08</u>
Total Gross Earnings from Operation.....		<u>\$16,149 43</u>

OPERATING EXPENSES.

Item.	Chargeable to Passenger Traffic.	Chargeable To Freight Traffic.	Total.
Maintenance of Way and Structures :			
Repairs of Roadway.....	\$1,091 68	\$3,275 04	\$4,366 72
Renewals of Ties.....	207 86	623 59	831 45
Repairs of Telegraph.....	3 61	10 85	14 46
Total	\$1,303 15	\$3,909 48	\$5,212 63
Conducting Transportation :			
Wages of Enginemen, Firemen and Round-housemen	\$312 25	\$ 936 75	\$1,249 00
Fuel for Locomotives.....	249 29	747 89	997 18
All other supplies for Locomotives	73 69	221 09	294 78
Wages of other Trainmen.....	110 03	330 10	440 13
Wages of Station Agents, Clerks and Laborers.....	392 03	1,176 09	1,568 12
Loss and Damage.....		16 28	16 28
Injuries to Persons.....	530 00		530 00
Total	\$1,667 29	\$3,428 20	\$5,095 49
General Expenses :			
Salaries of Officers and Clerks.....	\$ 250 00	\$ 750 00	\$1,000 00
Advertising.....	13 90	41 70	55 60
Legal Expenses.....	101 90	305 73	407 63
Stationery and Printing.....	40 77	122 32	163 09
Other General Expenses.....	5 80	17 40	23 20
Total	\$412 37	\$1,237 15	\$1,649 52
Recapitulation of Expenses :			
Maintenance of Way and Structures.....	\$1,303 15	\$3,909 48	\$5,212 63
Conducting Transportation.....	1,667 29	3,428 20	5,095 49
General Expenses.....	412 37	1,237 15	1,649 52
Grand Total.....	\$3,382 81	\$8,574 83	\$11,957 64

Percentage of Operating Expenses to Earnings, 74 per cent.

RENTALS PAID.

Name of Road.	Total.
Deerfield River Company's Railroad.....	\$455 30

GENERAL BALANCE SHEET.

Cost of Road.....	\$109,367 60	Capital Stock.....	\$50,000 00
Profit and Loss.....	5,059 82	Current Liabilities..	64,427 42
Total.....	\$114,427 42	Total.....	\$114,427 42

CASH STATEMENT OF FINANCIAL OPERATIONS FOR THE YEAR.

Resources to Account for.	Item.	Total.	Resources Accounted for.	Item.	Total.
Net Income : From Operation	\$4,191 97		Fixed Charges:		
Total.....		\$4,191 79	Other Interest paid....	\$1,214 11	
Increase in Current Liabilities	9,698 23		Rentals.....	2,855 30	
Total.....		9,698 23	Taxes	122 38	
			Total.....		\$4,191 79
			Other Charges Against Net Income :		
			Other Permanent Improvements	8,119 99	
			Total.....		8,119 99
			Miscellaneous Interest u paid.....	1,578 24	
			Total.....		1,578 24
Grand Total.....		13,890 02	Grand Total.....		\$13,890 02

CONTRACTS, AGREEMENTS, ETC.

Contract with United States Post-office Department, March 1, 1886, establishing Mail Route No. 2001, between Hoosac Tunnel, Mass., and Readsboro, Vt. Compensation fixed, March 1, 1886, to June 30, 1889, at \$483.07 per annum.

Contract with Western Union Telegraph Company, Oct. 14, 1885, by which the railroad company furnishes the poles and right of way and the telegraph company the wire and instruments for operation and has the use of the line.

EMPLOYES AND SALARIES.

Class.	Number.	Total Yearly Compensation.	Average Daily Compensation.
General Officers.....	2	\$1,000 00	\$1 66½
General Office Clerks.....			
Station Agents.....	1	480 00	1 60
Other Station Men.....	3	1,088 12	1 21
Enginemen.....	1	850 00	2 83
Firemen.....	1	399 00	1 33
Conductors.....	1	440 13	1 47
Total.....	9	\$4,257 25	
Distribution of above :			
General Administration.....	2	\$1,000 00	
Conducting Transportation.....	7	3,257 25	
Total.....	9	\$4,257 25	

PASSENGER, FREIGHT, AND TRAIN MILEAGE.

Item.	Column for Ton- nage, Number Passengers, Number Trains, Mileage, Num- ber Cars.	COLUMN FOR REVE- NUE AND RATES.		
		Dollars.	Cts.	Mills.
Passenger Traffic:				
Number of passengers carried earning revenue.....	7,705½			
Number of passengers car- ried one mile.....	72,583			
Average distance carried.....	9.42			
Total passenger revenue.....		3,141	79	
Average amount received from each passenger.....			40	76
Average receipts per passen- ger per mile.....			04	33
Passenger earnings per mile of road.....		285	62	

PASSENGER, FREIGHT, AND TRAIN MILEAGE.—Continued.

Item.	Column for Ton- nage, Number Passengers, Number Trains, Mileage, Num- ber Cars.	COLUMN FOR REVE- NUE AND RATES.		
		Dollars.	Cts.	Mills.
Freight Traffic :				
Number of tons carried of freight earning revenue....	13,334 $\frac{7}{16}$			
Number of tons carried one mile	126,679 $\frac{3}{4}$			
Average distance haul of one ton	9.5			
Total freight revenue		12,238	08	
Average amount received for each ton of freight			91	77
Average receipts per ton per mile			09	66
Freight earnings per mile of road		1,112	55	
Passenger and Freight :				
Passenger and freight earn- ings		15,379	87	
Passenger and freight earn- ings per mile of road		1,398	17	
Expense per mile of road		1,087	06	
Total earnings per mile of road, including Mails, Ex- press, etc		1,468	13	
Train Mileage :				
Miles run by mixed trains....	15,092			
Total Mileage Trains Earning Revenue	15,092			

FREIGHT TRAFFIC MOVEMENT.

Commodity.	Freight Originating on this Road.	
	Whole Tons.	
Products of { Lumber	517.5	
Forest. { Wet Wood Pulp	3,427.5	

DESCRIPTION OF EQUIPMENT.

Item.	Total Number at End of Year.
Locomotives :	
Passenger	2
Total	2
Cars in Passenger Service :	
Combination Passenger Cars	4
Total	4
Cars in Freight Service :	
Flat Cars	29
Total	29
Cars Leased	33
Grand Total Owned	35

MILEAGE.

Line in Use.	Main Line Owned.	Line Oper- ated under Lease.	Total Mileage Operated.	RAILS.
				Steel.
Miles of single track.	8	3	11	11
Miles of yard track, sidings and spurs..			1	1
Total Mileage Oper- ated (all tracks)...	8	3	12	12

MILEAGE OF LINE BY STATES AND TERRITORIES.

State or Territory.	Main Line Owned.	Line Oper- ated under Lease.	Total Mileage, Excluding Trackage Rights.	Steel Rails.
Massachussetts	8		8	8
Vermont		3	3	3
Total Mileage Operated (single track).....	8	3	11	11

MILEAGE OWNED BY ROAD MAKING THIS REPORT.

Line in Use.	Main Line Owned.	Steel Rails.
Miles of Single Track.....	8	8
Total Mileage Operated (all track.)	8	8

RENEWALS OF RAILS AND TIES.

Total Number New Ties Laid During Year.	Total Average Price at Distributing Point.
5,543	15 cents.

CONSUMPTION OF FUEL BY LOCOMOTIVES.

Locomotives.	Bituminous Coal—Tons.	Total Fuel Consumed. Tons.	Miles Run.	Average Pounds Consumed per Mile.
Passenger } ---- Freight } ----	319	319	15,092	5.26
Total.....	319	319	15,092	5.26

CHARACTERISTICS OF ROAD.

Gauge of Track.—Three feet.

STATE OF MASSACHUSETTS, } ss :
County of Hampden,

We, the undersigned, Daniel H. Newton, President, and John C. Newton, Treasurer, of the Hoosac Tunnel and Wilmington Railroad, on our oath do severally say that the foregoing return has been prepared, under our direction, from the original books, papers, and records of said Company; that we have carefully examined the same, and declare the same to be a complete and correct statement of the business and affairs of said Company in respect to each and every matter and thing therein set forth, to the best of our knowledge, information, and belief; and we further say that no deductions were made before stating the gross earnings or receipts herein set forth, except those shown in the foregoing accounts; and that the accounts and figures contained in the foregoing return embrace all of the financial operations of said Company during the period for which said return is made.

DANIEL H. NEWTON, *President.*
JOHN C. NEWTON, *Treasurer.*

Subscribed and sworn to before me,
this 26th day of September, 1889.

FRED F. PARTRIDGE,
Notary Public.

ANNUAL REPORT
OF THE
LEBANON SPRINGS RAILROAD,

WM. V. REYNOLDS, RECEIVER,

FOR THE YEAR ENDING JUNE 30, 1889.

HISTORY.

Name of common carrier making this report: Lebanon Springs Railroad—Wm. V. Reynolds, Receiver.

Date of organization: Chartered March 25, 1852.

Organized under the Laws of the State of New York and of the State of Vermont.

Names of constituent companies: Lebanon Springs R. R. Co., chartered under General Laws of the State of New York, and by Special Acts of the Legislature of the State of New York, covering a period of several years.

New York and Vermont Ry. Co., chartered by Act of the Legislature of the State of Vermont, approved Nov. 2, 1865; and being No. 134 of the Laws of that year, and several Acts amendatory thereof and supplementary thereto.

The Lebanon Springs R. R. Co., and the New York and Vermont Railway Co., were consolidated Aug. 20, 1867.

Date and authority for each consolidation: Act of the Legislature of the State of New York, passed Feb. 26, 1867. Act of the Legislature of the State of Vermont, passed March 28, 1867.

In process of reorganization.

ORGANIZATION.

Receiver unable to find the records of the Company.

Post-office address of general office: Bennington, Vermont.

Post-office address of operating office: Bennington, Vermont.

OFFICERS.

Assistant Treasurer—Wm. V. Reynolds, Receiver, Bennington, Vt.

General Passenger Agent, General Ticket Agent and General Freight Agent—Joseph Child, Bennington, Vt.

General Superintendent—E. D. Bennett, Bennington, Vt.

PROPERTY OPERATED.

Name.	TERMINALS.		Miles of Line for Each Class of Roads Named.
	From	To	
Lebanon Springs R. R.	Chatham, N. Y.	Bennington, Vt.	57.10
Total Mileage Operated. ....	.....	.....	57.10

CAPITAL STOCK.

Description.	Par Value of Shares.	Total Par Value Authorized.
Capital Stock : Common.	\$100 00	\$2,000,000 00
Total.	\$100 00	\$2,000,000 00

Total amount of Capital Stock issued and outstanding : Unknown.
Market price of Shares June 30, 1889 : No value.

FUNDED DEBT.

Class of Bond or Obligation.	TIME.		Amount of Authorized Issue.	Amount Issued.	Amount Outstanding.	INTEREST.	
	Date of Issue.	When Due.				Rate.	When Payable.
First Mortgage.	July 1, 1867.	July 1, 1897.	\$2,000,000	\$2,000,000	\$2,000,000	7	Jan. and July.

Amount Cash realized on Bonds issued : Unknown.

RECAPITULATION OF FUNDED DEBT.

Account.	Amount Issued.	Am't Outstanding.
Bonds.	\$2,000,000	\$2,000,000

CURRENT ASSETS AND LIABILITIES.

Cash and Current Assets Available for Payment of Current Liabilities.		Current Liabilities Ac- crued to and Includ- ing June 30, 1889.	
Cash	\$4,098 33	Audited Vouchers and Accounts	\$1,303 94
U. S. P. O. Dep't	763 34	Wages and Salaries	3,730 44
Due from Agents	2,833 14	Net Traffic Balances due to Other Compa- nies	935 63
Net Traffic Balances due from Other Com- panies	444 18	Balance—Cash Assets	2,812 32
Total	\$8,782 33	Total	\$8,782 33

INCOME ACCOUNT.

Gross Earnings from Operation	\$59,370 68	
Less Operating Expenses	56,440 63	
Income from Operation		\$2,930 05
Total Income		\$2,930 05
Deductions from Income :		
Rentals, including Tracks, Yards, and Ter- minals	\$190 00	
Taxes	215 39	
Total Deductions from Income		\$405 39
Net Income		\$2,524 66
Surplus from Operations of Year ending June 30, 1889		\$2,524 66
Deficit on June 30, 1889		\$2,524 66

EARNINGS FROM OPERATION.

Item.	Total Receipts.	Deductions Account of Repay- ments, Etc.	Actual Earnings.
Passenger :			
Passenger Revenue	\$16,103 97		
Total Passenger Revenue			\$16,103 97
Mail	\$3,053 36	\$80 00	2,973 56
Express	900 00		900 00
Total Passenger Earnings			\$19,977 33

EARNINGS FROM OPERATION.—Continued.

Item.	Total Receipts.	Deductions, Account of Repayments, Etc.	Actual Earnings.
Freight :			
Freight Revenue.....	\$38,777 11		
Overcharge to Shippers....	\$167 76		
Total Deductions.....		\$167 76	
Total Freight Revenue.....			\$38,609 35
Total Freight Earnings.....			\$38,609 35
Total Passenger and Freight Earnings.....			\$58,586 68
Other Earnings from Operation :			
Switching charges—Balance.....			784 00
Total Gross Earnings from Operation.....			\$59,370 68

OPERATING EXPENSES.

Item.	Chargeable to Passenger Traffic.	Chargeable to Freight Traffic.	Total.
Maintenance of Way and Structures :			
Repairs of Roadway.....	\$3,038 12	\$ 9,114 35	\$12,152 47
Renewals of Ties.....	65 19	195 53	260 74
Repairs of Bridges and Culverts.....	350 05	1,050 14	1,400 19
Repairs of Fences, Road-crossings, Signs and Cattle-guards.....	236 69	710 10	946 79
Repairs of Buildings.....	65 58	196 73	262 31
Repairs of Telegraph.....	7 40	22 20	29 60
Total	\$3,763 03	\$11,289 07	\$15,052 10

OPERATING EXPENSES.—Continued.

Item.	Chargeable to Passenger Traffic.	Chargeable to Freight Traffic.	Total.
Maintenance of Equipment :			
Repairs and Renewals of Locomotives.....	\$ 680 80	\$2,042 40	\$2,723 20
Repairs and Renewals of Passenger Cars.....	754 58		754 58
Repairs and Renewals of Freight Cars.....		2,273 64	2,273 64
Shop Machinery, Tools, etc.	11 66	34 98	46 64
Total.....	\$1,447 04	\$4,341 12	\$5,788 16
Conducting Transportation :			
Wages of Enginemen, Firemen, and Round-housemen.....	\$ 882 49	\$ 2,647 46	\$ 3,529 95
Fuel for Locomotives.....	1,830 28	5,490 81	7,321 09
Water-supply for Locomotives.....	29 91	89 73	119 64
All other Supplies for Locomotives.....	109 58	328 75	438 33
Wages of other Trainmen.....	1,040 28	3,120 84	4,161 12
All other Train Supplies.....	26 72	80 14	106 86
Wages of Switchmen, Flagmen, and Watchmen.....	638 60	1,915 79	2,554 39
Wages of Station Agents, Clerks and Laborers.....	1,365 56	4,096 58	5,462 14
Station Supplies.....	97 57	291 70	389 27
Car Mileage—Balance.....		1,924 69	1,924 69
Other Expenses: Hire of Engines.....	753 75	2,261 25	3,015 00
Total.....	\$6,774 74	\$22,247 74	\$29,022 48
General Expenses :			
Salaries of Officers.....	\$ 600 00	\$1,800 00	\$2,400 00
Salaries of Clerks.....	423 00	1,269 00	1,692 00
General Office Expenses and Supplies.....	127 33	381 99	509 32
Advertising.....	16 19	48 56	64 75
Rentals not otherwise provided for: General Office.....	49 98	149 94	199 72
Legal Expenses.....	124 44	373 31	497 75
Stationery and Printing.....	76 04	228 10	304 14
Other General Expenses.....	96 06	288 20	384 26
Total.....	\$1,513 04	\$4,539 10	\$6,052 14

OPERATING EXPENSES.—Continued.

Item.	Chargeable to Passenger Traffic.	Chargeable to Freight Traffic.	Total.
Recapitulation of Expenses :			
Maintenance of Way and Structures.....	\$ 3,763 03	\$11,289 07	\$15,052 10
Maintenance of Equipment.....	1,447 04	4,341 12	5,788 16
Conducting Transportation.....	6,774 74	22,247 74	29,022 48
General Expenses.....	1,513 04	4,539 10	6,052 14
Equipment charged to Operating Expenses.....			525 75
Grand Total.....	\$13,497 85	\$42,417 03	\$56,440 63
Percentage of Operating Expenses to Earnings.....	95,001		

As no Separate Accounts are kept of Freight and Passenger Expenses, this Account is distributed on the basis of twenty-five per cent. to Passenger, and seventy-five per cent. to Freight.

RENTALS PAID FOR LEASE OF OTHER PROPERTY.

Designation of Property.	Situation of Property Leased.	Name of Company Owning Property Leased.	Item.	Total.
Terminals :				
Ground for Station.....	Chatham, N. Y.	Mrs. I. L. Best	\$ 40 00	
Use of Station.....	Petersburgh J'n	Fitchburg R.R.	120 00	
Ground for Engine House.....	Bennington, Vt.	Est. Moses Robinson...	30 00	
Total.....				\$190 00
Total Rentals.....				\$190 00
Grand Total Rentals Paid.....				\$190 00

GENERAL BALANCE SHEET.

Cash and Current Assets....	\$2,812 32	Profit and Loss...	\$2,812 32
Total	\$2,812 32	Total	\$2,812 32

CASH STATEMENT OF FINANCIAL OPERATIONS
FOR THE YEAR.

Resources to Account For.	Item.	Total.	Resources Accounted For.	Item.	Total.
Net Income : From Opera- tion.....	\$2,930 05		Fixed Charges:		
			Rentals ..	\$109 00	
			Taxes	215 39	
			Total...	\$405 39	\$ 405 39
Total.....	\$2,930 05	\$2,930 05	Balance		2,524 66
Grand Total		\$2,930 05	Grand Total		\$2,930 05

CONTRACTS, AGREEMENTS, ETC.

National Express Co.:

To carry Express matter from Chatham to Bennington at the rate of nine hundred dollars per annum.

United States Post-office Department :

To carry United States Mail at a compensation of thirty-five hundred and ninety-six dollars and sixty-five cents per annum, commencing July 1, 1889, for five years. Previous compensation three thousand and fifty-three dollars and thirty-six cents.

EMPLOYES AND SALARIES.

Class.	Number.	Total Yearly Compensation.	Average Daily Compensation.
General Officers :			
Superintendent.....	1	\$ 1,200 00	
General Fr't and Pass. Agent.....	1	1,200 00	
Master Mechanic.....	1	1,200 00	
Road and Bridge Master.....	1	960 00	
General Office Clerks:			
Book-keeper.....	1	900 00	2 50
Time-keeper.....	1	480 00	1 60
Clerk.....	1	314 00	1 00
Station Agents.....	12	5,220 00	1 25
Other Station Men.....	2	120 00	20
Enginemen.....	4	2,620 00	2 28
Firemen.....	3	1,040 00	1 50
Conductors.....	3	1,440 00	2 17
Other Trainmen.....	7	2,786 00	1 20
Machinists.....	6	3,586 84	1 89
Carpenters.....	4	1,970 00	2 06
Section Foremen.....	11	4,280 00	1 33
Other Trackmen.....	33	7,190 00	1 10
Switchmen, Flagmen, and Watchmen.....	7	2,520 00	1 20
Telegraph Operators and Dispatchers.....	1	240 00	80
Total.....	100	\$38,266 84	
Distribution of above :			
General Administration.....		\$ 4,054 00	
Maintenance of Way and Structures.....		11,430 00	
Maintenance of Equipment.....		6,756 84	
Conducting Transportation.....		15,986 00	
Total.....		\$38,266 84	

This table is calculated on basis of working force in the summer months, it being reduced in the winter.

In case of monthly compensation, thirty days are used as basis of one month's work.

The total yearly compensation being amount actually paid during year.

PASSENGER, FREIGHT, AND TRAIN MILEAGE.

Item.	Column for Tonnage, Num- ber Passengers, Number Trains, Mileage, Number Cars.	COLUMN FOR REV- ENUE AND RATES.		
		Dollars.	Cts.	Mills.
Passenger Traffic :				
Number of passengers carried earning revenue.....	44,947			
Number of passengers carried one mile.....	5,334,656			
Average distance carried.....	11.915			
Total passenger revenue.....		\$16,103	97	
Average amount received from each passenger.....			35	746
Average receipts per passenger per mile.....			03	
Estimated cost of carrying each passenger one mile.....			03	533
Passenger earnings per mile of road.....		28	12	
Passenger earnings per train-mile.....			83	099
Freight Traffic :				
Number of tons carried of freight earning revenue....	39,977			
Number of tons carried one mile.....	1,095,997			
Average distance haul of one ton.....	27.41			
Total freight revenue.....		38,609	35	
Average amount received for each ton of freight.....			96	829
Average receipts per ton per mile.....			00	3522
Estimated cost of carrying one ton one mile.....			00	3870
Freight earnings per mile of road.....		67	70	
Freight earnings per train-mile.....			67	107
Passenger and Freight :				
Passenger and freight earnings.....		54,713	32	
Passenger and freight earnings per mile of road.....		95	82	052
Expense per mile of road.....		98	84	518

PASSENGER, FREIGHT, AND TRAIN MILEAGE.—Continued.

Item.	Column for Tonnage, Num- ber Passengers, Number Trains, Mileage, Number Cars.	COLUMN FOR REV- ENUE AND RATES.		
		Dollars.	Cts.	Mills.
Total earnings per mile of road, including Mails, Ex- press, etc.....		\$103	97	667
Number of mixed trains.....	6			
Train Mileage:				
Miles run by mixed trains....	76,692			
Miles run by construction and other trains.....	24,331			
Grand Total Train Mileage....	101,023			
Mileage of loaded freight cars—North or East.....	5,978			
Mileage of loaded freight cars—South or West.....	15,868			
Mileage of empty freight cars —North or East.....	11,986			
Mileage of empty freight cars —South or West.....	1,853			
Average number of freight cars in train.....	11			
Average number of loaded cars in train.....	6 2-3			
Average number of empty cars in train.....	4 1-3			
Average number of tons of freight in train.....	63.65			
Average number of tons of freight in each loaded car..	9 1-3			

FREIGHT TRAFFIC MOVEMENT.

Commodity.	Freight Originat- ing on this Road. Whole Tons.	Freight Received from Connect- ing Roads and other Carriers. Whole Tons.	TOTAL FREIGHT TONNAGE.	
			Whole Tons.	Per Cent.
Products of Agriculture :				
Grain	540	1,692	2,232	5.58
Flour	48	551	599	1.49
Other Mill Products, Hay, Tobacco, Cotton, Fruit and Vegetables, }	2,387	792	3,179	7.98
Products of Animals :				
Live Stock	28	91	119	.29
Dressed Meats	262	612	874	2.19
Products of Mines :				
Anthracite Coal		10,919		27.31
Stone, Sand, and Other like Articles	153	594	747	1.87
Products of Forest :				
Lumber and Charcoal	2,168	11,678	13,846	34.61
Manufactures :				
Petroleum and other Oils ..		213	213	.54
Iron, Pig and Bloom,	575	4	579	1.45
All other Manufactured Ar- ticles	2,357	1,297	3,654	9.14
Merchandise	217	702	919	2.30
Miscellaneous :	969	1,128	2,097	5.25
Total Tonnage	9,704	30,273	39,977	100.00

DESCRIPTION OF EQUIPMENT.

Item.	Total Number At End of Year.	EQUIPPED WITH TRAIN BRAKE.		CARS FITTED WITH AUTOMATIC COUPLER.	
		No.	Kind.	No.	Kind.
Locomotives :					
Freight	4				
Total.....	4				
Cars in Passenger Service :					
First-class Passenger Cars	3	3	Air.	3	Miller.
Combination Passenger Cars	2	2	"	2	"
Baggage, Express and Postal Cars.....	2	2	"	2	"
Total.....	7	7		7	
Cars in Freight Service :					
Box Cars.....	11				
Grand Total.	18	7		7	

MILEAGE.

Line in Use.	Main Line Owned.	Total Mileage Operated.	RAILS.	
			Iron.	Steel.
Miles of Single Track	57.10	57.10	30.10	27.00
Miles of Yard Track, Sidings, and Spurs.....	4.42	4.42		
Total Mileage Operated (all tracks).....	61.52	61.52	30.10	27.00

MILEAGE OWNED BY ROAD MAKING THIS REPORT.

State.	Main Line Owned.	Total Mileage Operated.	RAILS.	
			Iron.	Steel.
New York.....	51.18	51.18	24.18	27.00
Vermont.....	5.92	5.92	5.92	
Total Mileage Owned (single track).....	57.10	57.10	30.10	27.00

CONSUMPTION OF FUEL BY LOCOMOTIVES.

Locomotives.	COAL—TONS.	Total Fuel Consumed. Tons.	Miles Run.	Average Pounds Consumed per Mile.
	Bituminous.			
Switching.....	2,080.87	2,080.87	10,102,300	46.13
Average Cost at distributing point.....	\$3.70			

ACCIDENTS TO PERSONS.

Falling from Trains and Engines, 1 ; killed.

Total number of persons killed : 1.

CHARACTERISTICS OF ROAD.

PROFILE.

WORKING DIVISIONS OR BRANCHES.			ASCENDING GRADES.			DESCENDING GRADES.		
From	To	Miles.	No.	Sum of Ascents. Feet.	Aggre'te Length of Ascending Grades. Miles.	No.	Sum of Descents Feet.	Aggre'te Length of Descending Grades. Miles.
Chatham.	Bennington	57.10	8	1,302	30.75	7	1,172	26.35
	Total...	57.10	8	1,302	30.75	7	1,172	26.35

CHARACTERISTICS OF ROAD.—Continued.

<i>Bridges :</i>		
Number	Iron	5
Number	Wooden	28
<i>Trestles :</i>		
Number		7
Aggregate length		1,172 feet.
<i>Gauge of Track :</i>		4 ft., 8 1-2 in.
<i>Telegraph :</i>		
Owned by this Company		57.10 miles of line.
Owned by this Company		57.10 miles of wire.

GENERAL INFORMATION.

This Company pays rentals as follows :

Mrs. I. L. Best—Ground on which Station is built at Chatham, New York.

Fitchburg R. R.—For joint use of Station at Petersburg Junction, New York.

Estate of Moses Robinson—Ground on which Engine House is built at Bennington, Vt.

STATE OF VERMONT, }
 County of Bennington, } ss:

The undersigned, Wm. V. Reynolds, Receiver of the Lebanon Springs Railroad, on oath does say that the foregoing return has been prepared, under his direction, from the original books, papers, and records of said Railroad; that he has carefully examined the same, and declares the same to be a complete and correct statement of the business and affairs of said Railroad in respect to each and every matter and thing therein set forth, to the best of his knowledge, information, and belief; and he further says that no deductions were made before stating the gross earnings or receipts herein set forth, except those shown in the foregoing accounts; and that the accounts and figures contained in the foregoing return embrace all of the financial operations of said Railroad during the period for which said return is made.

WM. V. REYNOLDS, *Receiver.*

Subscribed and sworn to before me,
 this 2d day of December, 1889.

CLEMENT H. CONE, '
Notary Public.

ANNUAL REPORT OF THE MONTPELIER AND WELLS RIVER RAILROAD COMPANY,

FOR THE YEAR ENDING MARCH 31, 1889.

HISTORY.

Name of common carrier making this report: Montpelier & Wells River Railroad.

Date of organization: January 1, 1877. Date of charter, November 6, 1867.

Organized under the Laws of the State of Vermont.

Original corporation: Montpelier & Wells River Railroad Company. Reorganized under the General Laws of Vermont..

ORGANIZATION.

Names of Directors.	Post-Office Address.	Date of Expiration of Term.
D. R. Sortwell.....	East Cambridge, Mass.	Last Thursday in May, 1889.
S. S. Thompson.....	Lyndonville, Vt.....	
W. H. H. Bingham....	Stowe, Vt.....	
S. C. Shurtleff.....	Montpelier, Vt.....	
Joel Foster.....	Montpelier, Vt.....	

Total number of stockholders at date of last election: 39.

Date of last meeting of stockholders for election of directors: Last Thursday in May, 1888.

Post-office address of general office: Montpelier, Vt.

Post-office address of operating office: Montpelier, Vt.

OFFICERS.

President—D. R. Sortwell, Montpelier, Vt.

Vice-President—S. S. Thompson, Montpelier, Vt.

Treasurer—Joel Foster, Montpelier, Vt.

Cashier—F. W. Morse, Montpelier, Vt.

Chief Engineer—Asa Howe, Montpelier, Vt.

Gen'l Solicitor, Attorney, or Counsel—S. C. Shurtleff, Montpelier, Vt.

Auditor—F. W. Morse, Montpelier, Vt.

General Ticket Agent—F. W. Morse, Montpelier, Vt.

General Superintendent—W. A. Stowell, Montpelier, Vt.

General Baggage Agent—F. W. Morse, Montpelier, Vt.

PROPERTY OPERATED.

Name.	TERMINALS.		Miles of Line for Each Road Named.
	From	To	
Montpelier & Wells River Railroad.....	Montpelier.....	Wells River....	38.20

CAPITAL STOCK.

Description.	Par Value of Shares.	Total Par Value Authorized.	Total Amount Issued and Outstanding.
Capital Stock : Common.....	\$50 00	\$800,000 00	\$800,000 00
Manner of Payment for Capital Stock.	Number of Shares.	Total Cash Realized.	
Issued for Cash : Common.....	16,000	800 000 00	

PARTICULARS AND EXPLANATIONS.

Original bonds issued by the Montpelier & Wells River Railroad Company \$800,000. Converted into stock when Company was reorganized, January 1, 1877.

Original capital stock was \$400,000 in stock, \$800,000 in bonds. Interest was defaulted for several years when the holders of the bonds foreclosed and took the road, making face of bonds the capital stock.

At the time the bondholders foreclosed their mortgage and reorganized, January 1, 1877, Mr. D. R. Sortwell, the present president of the road, owned about 5-6 of the bonds. Since the reorganization he has purchased enough of those outstanding so at the present time he is the actual owner of over 97 per cent. of the total capital stock.

CURRENT ASSETS AND LIABILITIES.

Cash and Current Assets Available for Payment of Current Liabilities.		Current Liabilities Accrued to and Including June 30, 1889.
Cash.....	\$11,559 11	
Net Traffic Balance due from Other Compan- ies.....	491 05	Balance—Cash Assets. \$12,050 16

EXPENDITURES DURING THE YEAR.

We have no Construction Account. All improvements are charged in Operating Expense.

We have no Equipment Account. All charged in Operating Expense.

COST OF ROAD AND EQUIPMENT.

Cost of Constructed Road, \$800,000.

INCOME ACCOUNT.

Gross Earnings from Operation.....	\$104,356 56	
Less Operating Expenses.....	68,321 28	
Income from Operation,	\$36,035 28	
Total Income,		\$36,035 28
Other Deductions, Gross Expense <i>a/c</i> Barre Railroad,		36,234 38
Deficit,		\$199 10
Surplus on March 31, 1888.....		\$28,236 58
Surplus on June 30, 1889.....		\$28,037 48
Taxes Included in your Expense.		

EARNINGS FROM OPERATION.

Item.	Total Receipts.	Actual Earnings.
Passenger Revenue.....	\$34,530 36	
Total Passenger Revenue.....		\$34,530 36
Mail.....		2,575 20
Express.....		1,800 00
Total Passenger Earnings.....		\$38,905 56
Total Freight Revenue.....		\$61,830 19
Total Freight Earnings.....		\$61,830 19
Total Passenger and Freight Earnings....		\$100,735 75
Total Other Earnings.....		\$3,620 81
Total Gross Earnings from Operation.....		\$104,356 56

Extra Baggage and Storage in Passenger account.

OPERATING EXPENSES.

Item.	Total.
Maintenance of Way and Structures :	
Repairs of Roadway.....	\$13,371 39
Renewals of Rails.....	1,073 80
Renewal of Ties.....	5,036 70
Repairs of Bridges and Culverts.....	2,073 76
Repairs of Fences, Road-crossings, Signs, and Cattle-	
guards.....	532 47
Repairs of Buildings.....	1,131 59
Total.....	\$23,219 71
Maintenance of Equipment :	
Repairs and Renewals of Locomotives.....	\$3,864 92
Repairs and Renewals of Passenger Cars.....	1,507 01
Repairs and Renewals of Freight Cars.....	3,119 10
Shop Machinery, Tools, etc.,.....	594 21
Other Expenses.....	88 49
Total.....	\$9,173 73

OPERATING EXPENSES.—Continued.

Item.	Total.
Conducting Transportation :	
Fuel for Locomotives	\$11,450 46
Water Supply for Locomotives	64 25
Wages of all Trainmen	10,293 72
Wages of Station Agents, Clerks, and Laborers	3,799 55
Loss and Damage	166 49
Oil Account	1,205 32
Total	\$26,979 79
General Expenses :	
Salaries of Officers	\$4,519 03
Advertising	73 75
Insurance	504 75
Legal Expenses	500 00
Stationery and Printing	855 28
Other General Expenses	562 30
Taxes Paid State	1,932 94
Total	\$8,948 03
Recapitulation of Expenses :	
Maintenance of Way and Structures	\$23,219 71
Maintenance of Equipment	9,173 73
Conducting Transportation	26,979 79
General Expenses	8,958 05
Grand Total	\$68,321 28

GENERAL BALANCE SHEET.

Cost of Road	\$800,000 00	Capital Stock	\$800,000 00
Cash and Current As- sets	12,050 16	Profit and Loss	28,035 48
Sundries	15,983 32		
Total	\$828,035 48	Total	\$828,035 48

CASH STATEMENT OF FINANCIAL OPERATIONS FOR THE YEAR.

Resources to Account for.	Item.	Total.	Resources to Account for.	Item.	Total.
Net Income :			Fixed Charges :		
From Operation	\$37,968 22		Taxes.	\$1,932 94	
Total ..	\$37,968 22	\$37,968 22	Total Other Charges Against Net Income ...	\$36,234 38	\$1,932 94
Decrease in Assets :			Total		36,234 38
Cash Assets ..	\$2,213 45		Cash on Hand		2,014 35
Total ..		\$2,213 45	Grand Total		\$40,181 67
Grand Total ..		\$40,181 67			

IMPORTANT CHANGES DURING THE YEAR.

We have furnished material and money for construction of Barre Railroad, which is entered as gross expense account of Barre Railroad at time of this report. No other adjustment of this claim. No new road in operation.

CONTRACTS, AGREEMENTS, ETC.

American Express Company \$150 per month.
 United States Mail 2,790.24 per year.

Western Union Telegraph Company own the wires, poles and instruments. Our agents do the operating for them free of charge, in consideration of which we are granted free use of wire and instruments for train service and other railroad business.

EMPLOYES AND SALARIES.

Class.	Number.	Total Yearly Compensa- tion.	Average Daily Compensa- tion.
General Officers	3	\$ 4,500 00	
General Office Clerks	2	1,320 00	\$2 11
Station Agents	8	3,090 00	99
Other Station Men	2	786 00	1 26
Enginemen	5	4,135 75	2 29
Firemen	6	2,862 00	1 32
Conductors	3	2,430 00	2 25
Other Trainmen	9	4,050 00	1 25
Carpenters	2	1,248 00	2 00
Other Shopmen	1	730 00	2 00
Section Foremen	8	5,376 00	1 50
Other Trackmen	24	8,985 60	1 20
Switchmen, Flagmen and Watch- men	2	900 00	1 25
Total	75	\$40,413 35	
Distribution of Above:			
General Administration	3	4,500 00	
Maintenance of Way and Struc- tures	32	14,361 60	
Maintenance of Equipment	5	2,878 00	
Conducting Transportation	35	8,673 75	
Total	75	\$40,413 35	\$112 67

PASSENGER, FREIGHT, AND TRAIN MILEAGE.

Item.	Column for Tonnage, Num- ber Passengers, Number Trains, Mileage, Number Cars.	COLUMN FOR REV- ENUE, AND RATES.		
		Dollars.	Cts.	Mills.
Passenger Traffic:				
Number of passengers carried earning revenue.....	49,817			
Number of passengers carried one mile.....	983,441			
Average distance carried....	19.70			
Total passenger revenue.....		34,530	36	
Average amount received from each passenger.....			69	3
Average receipts per passen- ger per mile.....			03	5
Freight Traffic:				
Number of tons carried of freight earning revenue...	58,817			
Number of tons carried one mile.....	352,861			
Average distance haul of one ton.....	33			
Total freight revenue.....		61,830	19	
Average amount received for each ton of freight.....		1	17	
Average receipts per ton per mile.....			03	54
Passenger and Freight:				
Passenger and freight earn- ings.....		96,360	55	
Passenger and freight earn- ings per mile of road,		2,522	52	
Expense per mile of road....		1,788	51	
Total earnings per mile of road, including Mails, Ex- press, etc.....		2,731	84	
Number of passenger trains.	1,248			
Number of mixed trains....	624			
Train Mileage:				
Miles run by passenger trains	47,674			
Miles run by mixed trains....	23,838			
Total Mileage Trains Earning Revenue.....	71,512			

DESCRIPTION OF EQUIPMENT.

Item.	Number Added During Year.	EQUIPPED WITH TRAIN BRAKE.	
		Kind.	
Locomotives :			
Used for all Pur- poses	4	Westinghouse.	
Cars in Passenger Ser- vice :			
First-class Passen- ger Cars	4	Westinghouse.	Miller.
Combination Pas- senger Cars	1		
Baggage, Express, and Postal Cars ..	2		
Total	7		
Cars in Freight Ser- vice :			
Box Cars	38		
Flat Cars	63		
Stock Cars	6		
Coal Cars	4		
Refrigerator Cars ..	2		
Total	113		
Cars in Company's Service :			
Derrick Cars	1		
Caboose Cars	1		
Total	2		

MILEAGE OF ROAD OPERATED.

Line in Use.	Main Line Owned.
Miles of Single Track	38 1-5
Miles of Yard Track, Sidings and Spurs	8
Total Mileage operated (all tracks)	46 1-5
Total Mileage operated (single track)	38 1-5
Total mileage owned (single track)	38 1-5

CHARACTERISTICS OF ROAD.

Miles.	ALIGNMENT.			PROFILE.			
	Num- ber of Curves	Aggre- gate Length of Curv- ed Line. Miles.	Length of Straight Line. Miles.	Ascending Grades.		Descending Grades.	
				Sum of As- cents. Feet.	Aggre- gate Length of Ascend- ing Grades. Miles.	Sum of De- cents. Feet.	Aggre- gate Length of De- scending Grades. Miles.
38 1-5	103	20 1-5	18	912	19 6-10	918	18 6-10

Bridges :

Number Wooden 12

Trestles :

Number 2

Aggregate Length, 164+235 399 feet.

Gauge of Track 4ft. 8 1-2in.

This Road has no Debt.

STATE OF VERMONT, }
County of Washington, } ss.

I the undersigned, F. W. Morse, Cashier of the Montpelier and Wells River Railroad Company, on oath do say that the foregoing return has been prepared, under my direction, from the original books, papers, and records of said Company ; that I have carefully examined the same, and declare the same to be a complete and correct statement of the business and affairs of said Company in respect to each and every matter and thing therein set forth, to the best of my knowledge, information, and belief ; and I further say that no deductions were made before stating the gross earnings or receipts herein set forth, except those shown in the foregoing accounts ; and that the accounts and figures contained in the foregoing return embrace all of the financial operations of said Company during the period for which said return is made.

F. W. MORSE, *Cashier.*

Subscribed and sworn to before me,
this 1st day of September, 1890.

S. C. SHURTLEFF,

Master in Chancery.

ANNUAL REPORT
OF THE
NEW LONDON NORTHERN RAILROAD
COMPANY,

FOR THE YEAR ENDING JUNE 30, 1889.

HISTORY.

Name of common carrier making this report : New London Northern Railroad Company.

Date of organization : May 31st, 1860.

Organized under the General Laws of the States of Massachusetts and Connecticut.

Carrier operating the Road of this Company : Central Vermont Railroad Company.

ORGANIZATION.

Names of Directors.	Post-office Address.	Date of Expiration of Term.
Robert Coit.....	New London, Conn.....	February, 1890.
Benjamin Stark.....	New London, Conn.....	
Augustus Brandegee.....	New London, Conn.....	
Jonathan Harris.....	New London, Conn.....	
C. A. Williams.....	New London, Conn.....	
Thomas Ramsdell.....	Windham, Conn.....	
C. H. Osgood.....	Norwich, Conn.....	
James A. Rumsill.....	Springfield, Mass.....	
Thomas B. Eaton.....	Worcester, Mass.....	

Total number of stockholders at date of last election : 337.

Date of last meeting of stockholders for election of directors : February 6th, 1889.

Post-office address of general office : New London, Conn.

Post-office address of operating office : St. Albans, Vt.

OFFICERS.

President—Robert Coit, New London, Conn.

Secretary—J. A. Southard, New London, Conn.

Treasurer—Robert Coit, New London, Conn.

General Solicitor, Attorney, or Counsel—Augustus Brandegee, New London, Conn.

PROPERTY LEASED OR OTHERWISE ASSIGNED
FOR OPERATION.

Name.	TERMINALS.		By What Company Operated.	Under What Kind of Contract Operated.	Miles of Line.
	From	To			
New London	New London, Ct.	Brattleboro, Vt.	Central Vt. R. R.	Lease.	121
Northern	Brattleboro, Vt.	So. Londonderry.	Central Vt. R. R.	Lease.	36
Brattleboro and Whitehall					
Total Mileage	.....	.....	.....	.....	157

Leased to Central Vermont Railroad Company for twenty years, from December 1st, 1871, at a rental of \$155,000 per annum for 100 miles. New London to Miller's Falls, \$39,000 for 21 miles; Miller's Falls to Brattleboro, and interest on advances by lessors for permanent improvements; and \$12,000 per annum for Brattleboro and Whitehall Railroad.

CAPITAL STOCK.

Description.	Par Value of Shares.	Total Par Value Authorized.	Total Amount Issued and Outstanding.	MARKET PRICE OF SHARES.		DIVIDENDS DECLARED DURING YEAR.	
				June 30, 1889.	Average For Year.	Rate.	Amount.
Capital Stock : Common	\$100.00	\$2,000,000 00	\$1,500,000 00	\$125 00	\$125 00	7 per cent.	\$105,000 00
Total.....	\$100.00	\$2,000,000 00	\$1,500,000 00	\$125 00	\$125 00		\$105,000 00
Manner of Payment for Capital Stock.				Total Cash Realized.			
Issued for Cash : Common.....				\$ 340,673 33			
Issued for Bonds.....				1,102,000 00			
Issued for Stock of Amherst, Belchertown and Palmer Railroad.....				56,666 67			
Total.....				\$1,500,000 00			

FUNDED DEBT.

Class of Bond or Obligation.	TIME.		Amount of Authorized Issue.	Amount Issued.	Amount Outstanding.	Cash Realized on Amount Issued.	INTEREST.			
	Date of Issue.	When Due.					Rate.	When Payable.	Amount Accrued During Year.	Amount Paid During Year.
2d Mortgage	1872.	1892.	\$ 500,000 00	\$ 387,500 00	\$ 387,500 00	\$ 389,600 00	7%	June & Dec.	\$27,125 00	\$27,125 00
Consolidated.	1880.	1910.	.....	812,000 00	812,000 00	847,086 65	5 "	Jan'y & July	40,600 00	40,600 00
Consolidated.	1885.	1910.	1,500,000 00	300,000 00	300,000 00	304,520 00	4 "	"	12,000 00	12,000 00
Total.	.....	.....	\$2,000,000 00	\$1,499,500 00	\$1,499,500 00	\$1,541,196 65	.....	.....	\$79,725 00	\$79,725 00

RECAPITULATION OF FUNDED DEBT.

Account.	INTEREST.		
	Amount Issued.	Amount Outstanding.	Am't Accrued During Yr. Am't Paid During Year.
Bonds.....	\$1,499,500 00	\$1,499,500 00	\$79,725 00 \$79,725 00
Total.....	\$1,499,500 00	\$1,499,500 00	\$79,725 00 \$79,725 00

CURRENT ASSETS AND LIABILITIES.

CASH AND CURRENT ASSETS AVAILABLE FOR PAYMENT OF CURRENT LIABILITIES.		CURRENT LIABILITIES ACCRUED TO AND INCLUDING JUNE 30, 1889.	
Cash	\$ 48,275 20	Loans and Bills Payable	\$135,000 00
Due from Solvent companies and In- dividuals	148,996 55	Audited Vouchers and Accounts	145 62
		Dividends not called for	1,247 00
		Matured Interest Cou- pons Unpaid	5,064 34
		Balance-Cash Assets	55,814 79
Total	\$197,271 75	Total	\$197,271 75

RECAPITULATION.

Account.	Total Amount Outstanding.	Apportionm't to Railroads.	Miles.	Amount per Mile of Road
Capital Stock paid in	\$1,500,000 00	\$1,500,000 00	121	\$12,396 69
Bonds	1,499,500 00	1,499,500 00	121	12,392 56
Total	\$2,999,500 00	\$2,999,500 00	121	\$24,789 25

COST OF ROAD AND EQUIPMENT.

Item.	Total Cost to June 30, 1888.	Net Addit'ns During Year	Total Cost to June 30, 1889.	Cost Per Mile.
Total Con- struction ..	\$2,820,799 28	*\$10,215 00	\$2,810,584 28	\$23,227 97
Total Equip- ment	248,420 44		248,420 44	2,053 06
Grand Total	\$3,069,219 72	\$10,215 00	\$3,059,004 72	\$25,281 03

* Deduct Land sold.

INCOME ACCOUNT.

Income from Lease of Road.....		\$240,446 33
Miscellaneous Income—less Expenses	\$1,541 16	
Income from Other Sources.....		1,541 16
Total Income.....		\$241,987 49
Deductions from Income:		
Salaries and Maintenance of Organization.....	\$ 3,449 21	
Interest on Funded Debt Accrued..	79,725 00	
Interest on Interest-bearing Current Liabilities Accrued, not otherwise Provided for.....	6,383 83	
Taxes	280 78	
Total Deductions from Income		\$89,838 82
Net Income.....		\$152,148 67
Dividends, 7 per cent., Common Stock.	\$105,000 00	
Other Payments from Net Income, Steel Rails, less Old Iron.....	10,019 30	
New Bridges to replace those destroyed by fire and freshet.....	40,427 48	
New Buildings in place of those burned	15,278 47	
Miscellaneous	4,216 29	
Total.....		\$174,941 54
Deficit from Operations of Year ending June 30, 1889.....		\$ 22,792 87
Surplus on June 30, 1888.....		459,463 24
Surplus on June 30, 1889.....		\$436,670 37

BONDS OWNED.

Name.	Total Amount Held.
Brattleboro and Whitehall Railroad....	\$150,000 00

MISCELLANEOUS INCOME.

Item.	Gross Income.	Net Miscellaneous Income.
Rentals and Wharfage....	\$1,541 16	\$1,541 16

GENERAL BALANCE SHEET.

Cost of Road	\$2,810,584 28		Capital Stock	\$1,500,000 00
Cost of Equipment	248,420 44		Funded Debt	1,499,500 00
Bonds of other Companies			Current Liabilities	141,456 96
Owned.....	150,000 00			
Steamboat Property..	93,170 00			
		\$3,302,174 72		
Cash and Current Assets.....		197,271 75	Profit and Loss	436,670 37
Sundries ..		78,180 86		
Total....		\$3,577,627 33	Total....	\$3,577,627 33

CASH STATEMENT OF FINANCIAL OPERATIONS
FOR THE YEAR.

Resources To Account For.	Item.	Total.
Net Income :		.
From Lease of Road.....	\$236,997 12	
From Other Sources.....	1,541 16	
Total.....		\$238,538 28
Increase in Liabilities :		
Increase in Current Liabilities.....	\$2,944 37	
Total.....		2,944 37
Decrease in Assets :		
Cash on hand.....	\$ 2,533 68	
Other Assets.....	26,100 17	
Total.....		28,633 85
Miscellaneous :		
Sale of Lands.....	\$10,215 00	
Total.....		10,215 00
Grand Total.....		\$280,331 50

CASH STATEMENT.—Continued.

Resources Accounted For.	Item.	Total.
Fixed Charges :		
Interest on Funded Debt paid.....	\$79,725 00	
Other Interest paid.....	6,388 83	
Taxes	280 78	
Total.....		\$ 86,389 61
Other Charges against Net Income.....		69,941 54
Dividends		105,000 00
Increase in Assets :		
Cash Assets.....	\$19,000 35	
Total.....		\$ 19,000 35
Grand Total.....		\$280,331 50

SECURITY FOR FUNDED DEBT.

Class of Bond or Obligation.	WHAT ROAD MORTGAGED.			Amount of Mortgage per Mile of Line.
	From	To	Miles.	
Second Mortgage..	New London.	Millers Falls.	100	\$3,875 00
Consolidated	New London.	Brattleboro....	121	9,272 73

MILEAGE OWNED BY ROAD MAKING THIS REPORT.

State or Territory.	Main Line Owned.
Connecticut	56
Massachusetts	54
Vermont.....	11
Total Mileage Owned (single track)	121

STATE OF CONNECTICUT, }
County of New London, } ss.

I, the undersigned, Robert Coit, President and Treasurer of the New London Northern Railroad Company, on my oath do say that the foregoing return has been prepared, under my direction, from the original books, papers, and records of said Company; that I have carefully examined the same, and declare the same to be a complete and correct statement of the business and affairs of said Company in respect to each and every matter and thing therein set forth, to the best of my knowledge, information and belief; and I further say that no deductions were made before stating the gross earnings or receipts herein set forth, except those shown in the foregoing accounts; and that the accounts and figures contained in the foregoing return embrace all of the financial operations of said Company during the period for which said return is made.

ROBERT COIT, *President and Treasurer.*

Subscribed and sworn to before
me this 11th day of September,
1889.

JUSTUS A. SOUTHARD,
Notary Public.

ANNUAL REPORT

OF THE

ST. JOHNSBURY AND LAKE CHAMPLAIN
RAILROAD,

FOR THE YEAR ENDING JUNE 30, 1889.

HISTORY.

Name of common carrier making this report: St. Johnsbury & Lake Champlain Railroad Company.

Date of organization: Reorganized January 31, 1880.

Organized under the laws of the State of Vermont.

This railroad was a union of three separate lines, viz., the Lamoille Valley, the Montpelier & St. Johnsbury, and the Essex County Railroads.

The Lamoille Valley Railroad Company was chartered in 1867. The Montpelier & St. Johnsbury Railroad Company in 1866, and the Essex County Railroad Company in 1864, the charter of which was amended in 1866.

Consolidation was effected by the three roads jointly bonding their property, and, failing to pay the interest, all went into receiver's hands in 1877.

The road was first operated as the Portland and Ogdensburg Railroad Company—Vermont Division.

Reorganized under the name of St. Johnsbury & Lake Champlain Railroad, January 31, 1880, under the laws of the State of Vermont.

Commenced to operate under this name, July 1, 1880.

ORGANIZATION.

Names of Directors.	Post-office Address.	Date of Expiration of Term.
Geo. W. Hendee.....	Morrisville, Vt.....	September 12, 1889.
H. E. Folsom.....	Lyndonville, Vt....	
W. A. Stowell.....	Montpelier, Vt.....	
S. C. Shurtleff.....	Montpelier, Vt.....	
C. S. Page.....	Hyde Park, Vt.....	
Samuel C. Lawrence..	Medford, Mass.....	
Geo. C. Lord.....	Newton, Mass.....	
C. E. A. Bartlett.....	Chelmsford, Mass....	

Total number of stockholders at date of last election: 429.

Date of last meeting of stockholders for election of directors: September 13, 1888.

Post-office address of general office: Montpelier, Vt.

Post-office address of operating office: Boston, Mass.

OFFICERS.

President—C. E. A. Bartlett, Boston, Mass.

Secretary and Treasurer—F. W. Morse, Montpelier, Vt.

Cashier—C. E. A. Bartlett, Boston, Mass.

Chief Engineer—H. Bissell, Boston, Mass.

Auditor—M. Taylor, Boston, Mass.

General Freight Agent—W. F. Berry, Boston, Mass.

General Passenger and General Ticket Agent, D. J. Flanders, Boston, Mass.

Division Superintendent—H. E. Folsom, Lyndonville, Vt.

General Baggage Agent—W. R. Brackett, Boston, Mass.

PROPERTY OPERATED.

Name.	TERMINALS.		Miles of Line For Each Road Named	Miles of Line for Each Class of Roads Named.
	From	To		
St. Johnshury & Lake Champlain Railroad	Lunenburg, Vt	Maquam Bay, Vt	120.00	120.00
Victory Branch....	North Concord Vt	East Haven, Vt	11.50	11.50
Portland & Ogdens- hurg Railroad....	Lunenburg, Vt.	Scotts, N. H..	2.50	2.50

Total mileage operated, 134 miles.

Name of all Coal, Bridge, Canal, or other Properties, the Profit or Loss only from which is included in the General Balance Sheet.

Name.	Character of Business.	Title.	State or Territory.
Steamer Maquam....	Freight and Pas- senger	Owned.	Lake Champlain bet. Vt. & N.Y.

CAPITAL STOCK.

Description.	Par Value of Shares.	Total Par Value Authorized.	Total Amount Issued and Out- standing.
Capital Stock : Common.	\$50 00	\$2,550,000 00	\$2,550,000 00
Preferred.	50 00	1,298,500 00	1,298,500 00
Less			\$3,848,500 00
			250,250 00
Total		\$3,848,500 00	\$3,598,250 00

Market price of shares.—Practically of no value.

CAPITAL STOCK.—Continued.

Manner of Payment for Capital Stock.	Number of Shares.	Total Cash Realized.	Particulars and Explanations.
Issued for Reorganization: Common.....	51,000	Issued in place of bonds.	Sufficient common and preferred stock was understood to have been issued at the last reorganization to take up all outstanding bonds. \$350,250.00 of the bonds have not been so taken or converted, but the company shows the full issue of stock as a liability and the unissued as an asset in its treasury.
Preferred.....	25,970		
Total.....	76,970		

FUNDED DEBT.

Class of Bond or Obligation.	TIME.		Amount of Authorized Issue.	Amount Issued.	Am't Outstanding.	Cash Realized on Am't Issued.	Rate.	When Payable.	INTEREST.	
	Date of Issue.	When Due.							Am't Accrued Dur- ing Year.	Amount Paid Dur- ing Year.
1st Mortgage	Apr. 1, 1880.	April 1, 1910.	\$ 600,000	\$ 600,000	\$550,000	\$900,000	6%	April 1, Oct. 1.	\$33,000	\$33,000
Consolidated Mortgage...	April 1, 1884.	April 1, 1914.	1,000,000	50,000	50,000	-----	6%	April 1, Oct. 1.	3,000	3,000
				41,000	41,000	41,000	5%	1st day of Apr., July, Oct. and January.	2,050	2,050
Total.....			\$1,600,000	\$691,000	\$641,000	\$641,000	-----		\$38,050	\$38,050

\$50,000 1st Mortgage Bonds were exchanged for same amount of Consolidated Mortgage Bonds.

RECAPITULATION OF FUNDED DEBT.

Account.	Amount Issued.	Amount Outstanding.	INTEREST.	
			Amount Accrued During Year.	Amount Paid During Year.
Bonds	\$691,000 00	\$641,000 00	\$38,050 00	\$38,050 00
Total.....	\$691,000 00	\$641,000 00	\$38,050 00	\$38,050 00

CURRENT ASSETS AND LIABILITIES.

Cash and Current Assets Available for Payment of Current Liabilities.

Cash	\$ 17,086 17
Due from Agents	3,875 57
Net Traffic Balances due from Other Companies ..	10,950 30
Due from Solvent Companies and Individuals.....	30,150 12
Other Cash Assets*.....	38,209 99
Balance—Current Liabilities	944,961 53
Total	\$1,045,233 68

*Material and Supplies on hand, \$100,473.10.

Current Liabilities Accrued to and Including June 30, 1889.

Loans and Bills Payable.....	\$775,335 32
Audited Vouchers and Accounts.....	256,849 52
Wages and Salaries.....	12,718 84
Matured Interest Coupons unpaid (including Coupons due July 1.).....	330 00
Total	\$1,045,233 68

RECAPITULATION.

Account.	Total Amount Outstanding.	Apportionment to Railroads.	Miles.	Amount per Mile of Road.
Capital Stock.....	\$3,598,250 00	\$3,598,250 00	131.50	\$27,363 12
Bonds.....	641,000 00	641,000 00	131.50	4,874 52
Total.....	\$4,239,250 00	\$4,239,250 00	-----	\$32,237 64

42 For Mileage Operated by Road Making this Report (Trackage Rights Excluded), the Operations of which are Included in the Income Account.

Name of Road.	Capital Stock.	Funded Debt.	Current Liabilities.	Total.	Miles.	Amount per Mile of Road.
St. Johnsbury & Lake Champlain Railroad...	\$3,598,250 00	\$641,000 00	\$944,961 53	\$5,184,211 53	134	\$38,688 14
Total	\$3,598,250 00	\$641,000 00	\$944,961 53	\$5,184,211 53	134	\$38,688 14

PERMANENT IMPROVEMENTS FOR THE YEAR.

Item.	EXPENDITURES DURING THE YEAR.		Differences or Net Additions to Property, Etc.
	Not Included in Operating Expenses.	Total Expenditures.	
Construction :			
Right of Way	\$6,430 35	\$6,430 35	\$6,430 35
Grand Total Construction and Equipment	\$6,430 35	\$6,430 35	\$6,430 35

COST OF ROAD AND EQUIPMENT.

Item.	Total Cost to June 30, 1888.	Net Additions During Year.	Total Cost to June 30, 1889.	Cost per Mile.
Construction :				
Right of Way	\$4,452,441 84	\$6,430 35	\$4,458,872 19	33,907 77
Other Real Estate ..				
Fences				
Grading and Bridge and Culvert Masonry				
Bridges and Trestles				
Rails				
Ties				
Other Superstructure				
Buildings, Furniture and Fixtures			8,318 52	63 25
Shop Machinery and Tools				
Total Construction	\$4,452,441 84	\$6,430 35	\$4,467,190 71	33,971 02
Equipment :				
Locomotives				
Passenger Cars				
Sleeping, Parlor and Dining Cars				
Baggage, Express and Postal Cars				
Combination Cars ..				
Freight Cars			\$151,567 53	\$1,152 60
Other Cars of all classes				
Grand Total Cost Construction and Equipment	\$4,452,441 84	\$6,430 35	\$4,618,758 24	35,123 62

Detail of Construction and Equipment are not within reach of the compiler of these statistics.

INCOME ACCOUNT.

Gross Earnings from Operation.....	\$364,342 67	
Less Operating Expenses.....	458,925 12	
Deficit.....		\$94,582 45
Deductions from Income :		
Interest on Funded Debt Accrued.....	\$38,050 00	
Taxes	6,779 24	
Other Deductions (Steamer Maquam)...	638 00	
Total Deductions from Income.....		45,467 24
Deficit.....		\$140,049 69
Deficit from Operations of Year ending June 30, 1889.....		\$140,049 69
Deficit on June 30, 1888.....		224,868 80
Deficit on June 30, 1889.....		\$364,918 49

EARNINGS FROM OPERATION.

Item.	Total Receipts.	Actual Earnings.
Passenger :		
Passenger Revenue.....	\$66,121 35	
Total Passenger Revenue.....		\$66,121 35
Mail		8,484 96
Express.....		3,300 00
Other Items.....		171 85
Total Passenger Earnings.....		\$78,078 16
Freight :		
Freight Revenue.....	\$285,986 67	
Total Freight Earnings.....		\$285,986 67
Total Passenger and Freight Earnings.....		\$364,064 83
Other Earnings from Operation :		
Other sources.....		277 84
Total Other Earnings.....		277 84
Total Gross Earnings from Operation.....		\$364,342 67

OPERATING EXPENSES.

Item.	Chargeable to Passenger Traffic.	Chargeable to Freight Traffic.	Total.
Maintenance of Way and Structures:			
Repairs of Roadway.....	\$23,205 65	\$61,952 69	\$85,158 34
Renewals of Rails.....	3,190 00	8,516 43	11,706 43
Renewals of Ties.....	7,991 72	21,335 69	29,327 41
Repairs of Bridges and Culverts.....	12,647 12	33,764 32	46,411 44
Repairs of Fences, Road-crossings, Signs, and Cattle-guards.....	2,619 61	6,993 63	9,613 24
Repairs of Buildings.....	9,387 37	25,061 69	34,449 06
Total.....	\$59,041 47	\$157,624 45	\$216,665 92
Maintenance of Equipment:			
Repairs and Renewals of Locomotives.....	\$9,362 02	\$16,277 19	\$25,639 21
Repairs and renewals of Passenger Cars.....	2,073 58	-----	2,073 58
Repairs and renewals of Freight Cars.....	-----	14,252 73	14,252 73
Total.....	\$11,435 60	\$30,529 92	\$41,965 52
Conducting Transportation :			
Wages of Enginemen, Firemen and Round-housemen.....	\$ 8,642 46	\$23,072 98	\$31,715 44
Fuel for Locomotives*.....	21,700 82	57,935 21	79,636 03
Water-supply for Locomotives.....	256 81	685 63	942 44
All other Supplies for Locomotives.....	325 14	868 05	1,193 19
Wages of other Trainmen....	4,901 40	19,221 43	24,122 82
All other train Supplies.....	963 40	1,737 53	2,700 93
Expense of Telegraph, including Train Dispatchers and Operators.....	1,286 98	3,425 89	4,722 87
Wages of Station Agents, Clerks and Laborers.....	3,252 34	8,682 85	11,935 19
Station Supplies.....	721 64	1,926 57	2,648 21
Car Mileage—Balance.....	1,034 10	13,123 67	14,157 77
Loss and Damage.....	458 81	1,224 90	1,683 71
Injuries to Persons.....	1,039 82	2,776 02	3,815 84
Total.....	\$44,583 72	\$134,690 72	\$179,274 44

OPERATING EXPENSES.—Continued.

Item.	Chargeable to Passenger Traffic.	Chargeable to Freight Traffic.	Total.
General Expenses :			
Salaries of Officers.....	\$ 2,481 67	\$6,625 38	\$9,107 05
Agencies, including Salaries and Rent.....	94 32	251 81	346 13
Advertising.....	397 36	1,060 84	1,458 20
Insurance.....	550 45	1,469 55	2,020 00
Expense of Fast Freight Lines.....	1,028 99	2,747 14	3,776 13
Legal Expenses.....	420 49	1,122 60	1,543 09
Stationery and Printing....	484 71	1,294 04	1,778 75
Other General Expenses....	269 75	720 14	989 89
Total.....	\$5,727 74	\$15,291 50	\$21,019 24
Recapitulation of Expenses :			
Maintenance of Way and Structures.....	\$29,041 47	\$157,624 45	\$216,665 92
Maintenance of Equipment.....	11,435 60	30,529 92	41,965 52
Conducting Transportation.....	44,583 72	134,690 72	179,274 44
General Expenses.....	5,727 74	15,291 50	21,019 24
Grand Total.....	\$120,788 53	\$338,136 59	\$458,925 12

Percentage of Operating Expenses to Earnings, 126 per cent.

*Fuel for locomotives (\$79,636.03), contains the value of about 3,000 tons of coal, which is an adjustment of stock account previous year, as shown by actual measurement. \$15,000.00 are consequently deducted before answering questions in regard to consumption of fuel.

GENERAL BALANCE SHEET.

Cost of Road.....	\$4,467,190 71	Capital Stock.....	\$3,598,250 00
Cost of Equipment.....	151,567 53	Funded Debt.....	641,000 00
Steamboat.....	31,123 96	Current Liabilities.....	1,045,233 68
Maquam Laud.....	81,600 24	Accrued Interest on Funded Debt not yet payable...	9,512 50
Cash and Current Assets.....	100,272 15	Accrued Taxes....	3,150 00
Other Assets:			
Materials and Supplies.....	100,473 10		
Profit and Loss.. ..	364,918 49		
Total.....	\$5,297,146 18	Total.....	\$5,297,146 18

CASH STATEMENT OF FINANCIAL OPERATIONS FOR THE YEAR.

Resources to Account For.	Item.	Total.
Increase in Liabilities :		
Increase in Current Liabilities.....	\$146,887 67	
Total.....		\$146,887 67
Decrease in Assets:		
Other Assets—Working Material.....	\$30,436 45	
Total.....		30,436 45
Grand Total.....		\$177,324 12
Resources Accounted For.	Item.	Total.
Fixed Charges :		
Interest on Funded Debt paid.....	\$38,050 00	
Taxes.....	6,779 24	
Total.....		\$44,829 24
Other Charges against Net Income.....		638 00
Other Permanent Improvements.....	\$6,430 35	
Total.....		6,430 35
Decrease in Current Liabilities.....		1,014 19
Increase in Assets :		
Cash on hand.....	\$ 2,920 41	
Cash Assets.....	26,909 48	
Total.....		29,829 89
Deficit in Operation.....		94,582 45
Grand Total.....		\$177,324 12

CONTRACTS, AGREEMENTS, ETC.

American Express Co.—Stated allowance.

United States.—Stated Allowance.

Wagner Palace Car Co.—Allowance for use of cars.

Different lines as shown under head of General Information. Arrangements are too numerous to mention.

Numerous arrangements with connecting and other roads.

Vermont International.—Stated rental.

EMPLOYES AND SALARIES.

Class.	Number.	Total Yearly Compensa- tion.	Average Daily Compen- sation.
General Officers (all hold positions on other roads).....	7	\$4,100 00	.....
General Office Clerks.....	5	3,400 00	82 18
Station Agents.....	26	10,715 88	1 32
Other Station Men.....	3	960 00	1 02
Enginemen.....	19	16,005 60	2 70
Firemen.....	19	12,168 00	1 50
Conductors.....	15	9,576 00	2 05
Other Trainmen.....	22	13,759 20	1 55
Machinists.....	4	2,808 00	2 25
Carpenters (Account Buildings and Bridges).....	25	13,494 00	1 73
Other Shopmen.....	19	7,291 44	1 23
Section Foremen.....	34	16,352 40	1 55
Other Trackmen.....	117	43,804 80	1 20
Switchmen, Flagmen and Watch- men.....	1	240 00	77
Telegraph Operators and Dispatch- ers.....	4	1,860 00	1 50
All other Employes & Laborers } Stone Masons..... }	2	1,946 88	3 12
Total.....	322	\$158,482 20	
Distribution of above :			
General Administration.....	12	\$ 7,500 00	.....
Maintenance of Way and Struc- tures.....	178	75,598 08	1 36
Maintenance of Equipment.....	23	10,099 44	1 41
Conducting Transportation.....	109	65,284 68	1 92
Total.....	322	\$158,482 20	

PASSENGER, FREIGHT, AND TRAIN MILEAGE.

Item.	Column for Ton- nage, Number Passengers, Number Trains, Mileage, Number Cars.	COLUMN FOR REVE- NUE AND RATES.		
		Dollars.	Cts.	Mills.
Passenger Traffic :				
Number of passengers carried earning revenue.....	107,719			
Number of passengers carried one mile.....	2,401,898			
Average distance carried.....	22 $\frac{1}{10}$			
Total passenger revenue.....		8 66,121	35	
Average amount received from each passenger.....			61	38
Average receipts per passen- ger per mile.....			02	75
Average cost of carrying each one mile*.....			05	02
Passenger earnings per mile of road.....		493	44	
Passenger earnings per train- mile.....			50	24
Freight Traffic :				
Number of tons carried of freight earning revenue...	363,923			
Number of tons carried one mile.....	22,443,727			
Average distance haul of one ton.....	61.67			
Total freight revenue.....		285,986	67	
Average amount received for each ton of freight.....			78	58
Average receipts per ton per mile.....			01	274
Estimated cost of carrying one ton one mile*.....			01	506
Freight earnings per mile of road.....		2,134	22	
Freight earnings per train- mile.....			81	38
Passenger and Freight :				
Passenger and freight earn- ings.....		364,064	83	
Passenger and freight earn- ings per mile of road.....		2,716	90	
Expense per mile of road*.....		3,424	81	

PASSENGER, FREIGHT, AND TRAIN MILEAGE.—Continued.

Item.	Column for Ton- nage, Number Passengers, Number Trains, Mileage, Number Cars.	COLUMN FOR REVE- NUE AND RATES.		
		Dollars.	Cts.	Mills.
Number of passenger trains..	4			
Number of freight trains....	13			
Train Mileage :				
Miles run by passenger trains	131,606			
Miles run by freight trains..	351,394			
Total Mileage Trains Earning Revenue.....	483,000			
Miles run by switching trains	43,207			
Miles run by construction and other trains.....	24,526			
Grand Total Train Mileage..	550,733			

*The condition of the road makes it necessary to renew and improve several buildings and bridges, the cost of which has been carried into expense.

This being divided between passenger and freight expenses, shows the cost of transporting freight and passengers per ton per mile abnormally large.

DESCRIPTION OF EQUIPMENT.

Item.	Total Number at End of Year	EQUIPPED WITH TRAIN BRAKE.		CARS FITTED WITH AUTOMATIC COUPLER.	
		No.	Kind.	No.	Kind.
Locomotives :					
Passenger	8	8	West'ghouse.		
Freight.....	4				
Total.....	12	8			
Cars in Passenger Service :					
First-class Passen- ger Cars.....	5	5	West'ghouse.	5	Miller.
Parlor Cars.....	1				
Baggage, Express and Postal Cars	2	2	West'ghouse.	2	Miller.
Total.....	8	7		7	

DESCRIPTION OF EQUIPMENT.—Continued.

Item.	Total Number at End of Year.	EQUIPPED WITH TRAIN BRAKE.		CARS FITTED WITH AUTOMATIC COUPLER.	
		No.	Kind.	No.	Kind.
Cars in Freight Service:					
Box Cars.....	118				
Flat Cars.....	133				
Stock Cars.....	12				
Total.....	263				
Cars in Company's Service:					
Derrick Cars... }	5				
Caboose Cars... }					
Total.....	5				
Cars contributed to Fast Freight Line Service.....	23				
Total Owned..	291				
Grand Total...	291				

MILEAGE.

Line in Use.	Main Line Owned.	Branch Line Owned.	Line Oper- ated under Lease.	Total Mileage Operated.	RAILS.	
					Iron.	Steel.
Miles of single track.....	120	11.50	2.50	134	16	118
Miles of Yard Track, Sidings and Spurs.....	15.09	-----	-----	15.09	15.09	---
Total Mileage Operated (all tracks).....	135.09	11.50	2.50	149.09	31.09	118

MILEAGE OF LINE BY STATES AND TERRITORIES.

State or Territory.	Main Line Owned.	Branch Line Owned.	Line Operated under Lease.	Total Mileage, Excluding Track-age Rights.	RAILS.	
					Iron.	Steel.
Vermont	120	11.50	.....	131.50	16	115.50
New Hampshire .....	.....	.....	2.50	2.50	.....	2.50
Total Mileage Operated (single track)	120	11.50	2.50	134.00	16	118.00

RENEWALS OF RAILS AND TIES.

NEW RAILS LAID DURING YEAR.			NEW TIES LAID DURING YEAR.		
Kind.	Tons.	W'g't per Yard.	Kind.	Number.	Average Price at Distributing Point.
Steel	792,2160	60 lbs.	Cedar	37,818	28c.
			Hemlock	48,695	25c.
			Tamarack	17,954	27c.
			Chestnut	3	35c.
Total Steel....	792,2160		Total.....	104,470	

CONSUMPTION OF FUEL BY LOCOMOTIVES.

Locomotives	Bituminous Coal. Tons.	Cords Mix'd Wood.	Total Fuel Consumed. Tons.	Miles Run.	Av Pds. Consumed per mile
Passenger	3,340	226	3,453	131,606	58.76
Freight	8,918	602	9,219	351,394	58.76
Switching	1,096	74	1,133	43,207	58.76
Construction	622	42	643	24,526	58.76
Total	13,976	944	14,448	550,733	

Average cost at distributing point:—Bituminous coal, \$4.42 per ton; mixed wood, \$3.10 per cord.

ACCIDENTS TO PERSONS.

Kind of Accident.	Trainmen Killed.	Other Employees Killed.	Passengers Killed.	Not Trespassing. Killed.
Coupling and Uncoupling	1			
Falling from Trains and Engines	1			
At Stations			1	1
Other Causes		1		1
Total	2	1	1	2

NOTE 1.—John Paquette, an employe, was killed while riding upon a hand-car, which came in contact with a locomotive.

NOTE 2.—J. J. Pasham, employed by Contractors Caldwell & Barnum, was run over and fatally injured by a car being pushed down the track, upon which he was lying.

CHARACTERISTICS OF ROAD.

Bridges :

Number Wooden 30

Trestles :

Number 32

Aggregate length 4,829 feet.

Gauge of Track—4 feet, 8½ inches.

Telegraph.—120 miles of line operated by Vermont International.

GENERAL INFORMATION.

\$800 per year paid for accommodations at St. Johnsbury, Vt., belonging to Boston & Maine Railroad.

The following Fast Freight Lines, of which this Road is a member, operate over the line of this Road :

Canadian Pacific Despatch.
Rome, Watertown & Ogd. Fast Line.
Red Line.
White Line.
Midland Line.

Blue Line.
Nickel Plate Line.
Great Eastern Line.
Ogdensburg Transit Co.
Canada Atlantic Line.

STATE OF MASSACHUSETTS, }
County of Suffolk, } ss :

We, the undersigned, C. E. A. Bartlett, President, and Myron Taylor, Auditor, of the St. Johnsbury & Lake Champlain Railroad, Co., on our oath do severally say that the foregoing return has been prepared, under our direction, from the original books, papers, and records of said Company ; that we have carefully examined the same, and declare the same to be a complete and correct statement of the business and affairs of said Company in respect to each and every matter and thing therein set forth, to the best of our knowledge, information, and belief : and we further say that no deductions were made before stating the gross earnings or receipts herein set forth, except those shown in the foregoing accounts ; and that the accounts and figures contained in the foregoing return embrace all of the financial operations of said Company during the period for which said return is made.

C. E. A. BARTLETT, *President.*

MYRON TAYLOR, *Auditor.*

Subscribed and sworn to before me,
this 10th day of September, 1889.

SAMUEL B. HILDRETH,

Justice of the Peace.

ANNUAL REPORT
OF THE
UPPER COOS RAILROAD,
SIX MONTHS,
JANUARY 1st TO JUNE 30th, 1889
HISTORY.

Name of common carrier making this report: Upper Coos Railroad.

Date of organization: 1884.

Organized under the laws of the State of New Hampshire.

Not a consolidated company.

Name carrier operating the road of this company: Upper Coos Railroad.

ORGANIZATION.

Names of Directors.	Post-office Address.	Date of Expiration of Term.
George Van Dyke.....	Coos, N. H.	
Frank Jones.....	Portsmouth, N. H.	
Chas. A. Sinclair.....	" "	
James P. Cook.....	Salem, Mass.	
E. G. Sweatt.....	Woonsocket, R. I.	
Irving W. Drew.....	Lancaster, N. H.	
Charles Howard.....	Providence, R. I.	

Total number of stockholders at date of last election: 7.

Date of last meeting of stockholders for election of directors: August, 1887.

Post-office address of general office: Coos, N. H.

Post-office address of operating office: Coos, N. H.

OFFICERS.

President—George Van Dyke, Coos, N. H.

Treasurer—James P. Cook, Boston, Mass.

Cashier—H. W. Waldron, Coos, N. H.

General Solicitor, Attorney or Counsel—Irving W. Drew, Lancaster, N. H.

Auditor—H. W. Waldron, Coos, N. H.

General Manager—E. G. Sweatt, Coos, N. H.

General Superintendent—James Twohey, Coos, N. H.

PROPERTY OPERATED.

Name.	TERMINALS.		Miles of Line For Each Road Named.
	From	To	
Upper Coos Railroad.	North Stratford, N. H.	West Stewartstown, N. H.	22.87
	West Stewartstown, N. H.	State Line.	
		Beecher Falls, Sta.	
		East Canaan, Vt.	

CAPITAL STOCK.

Description.	Par Value of Shares.	Total Par Value Authorized.	Total Amount Issued and Outstanding
Capital Stock : Common	\$100 00	\$350,000 00	\$350,000 00
Manner of Payment for Capital Stock.			Number of Shares.
Issued for Construction : Common			3,500

FUNDED DEBT.

Class of Bond or Obligation.	TIME.		Amount of Authorized Issue.	Amount Issued.	Amount Outstand- ing.	INTEREST.		
	Date of Issue.	When Due.				Rate.	When Payable.	Amount Accrued During Year.
1st Mortgage.....	Oct. 1, 1887.	Oct. 1, 1917.	\$350,000 00	\$350,000 00	\$350,000 00	6%	Apr. & Oct. 1911.	6 months. \$10,500 00
Cash Paid on Delivery of Equipment.....						\$99,281 00		

RECAPITULATION OF FUNDED DEBT.

Account.	Amount Issued.	Amount Outstand- ing.	INTEREST.	
			Amount Accrued During Year.	
Bonds.....	\$350,000 00	\$250,000 00	\$10,500 00	

CURRENT ASSETS AND LIABILITIES.

Cash and Current Assets Available for Payment of Current Liabilities.

Cash.....	\$ 2,470 21
Bills Receivable.....	9,257 81
Due from Agents.....	133 44
Balance—Current Liabilities.....	88,126 36
Total.....	\$99,981 88

Current Liabilities Accrued to and Including June 30, 1889.

Loans and Bills Payable.....	\$58,290 50
Audited Vouchers and Accounts.....	1,531 31
Net Traffic Balances Due to other Companies.....	3,410 07
Matured Interest Coupons Unpaid (including Coupons due July 1).....	36,750 00
Total.....	\$99,981 88

RECAPITULATION.

Account.	Total Amount Outstanding	AMOUNT PER MILE OF ROAD.	
		Miles.	Amount.
Capitol Stock.....	\$350,000 00		
Bonds.....	350,000 00	\$22.87	\$30,973 00

FOR MILEAGE OPERATED BY ROAD MAKING THIS REPORT.

Name of Road.	Capital Stock.
Upper Coos Railroad.....	\$350,000 00
Grand Total.....	\$350,000 00

PERMANENT IMPROVEMENTS FOR THE YEAR.

Item.	EXPENDITURES DURING THE YEAR.
	Included in Operating Expenses.
Construction :	
Fences.....	\$398 96
Grading and Bridge and Culvert Masonry.....	305 80
Bridges and Trestles.....	252 25
Buildings, Furniture and Fixtures.....	265 10
Total Construction.....	\$1,221 91
Equipment :	
Combination Cars.....	\$ 700 00
Freight Cars.....	43,720 00
Total Equipment.....	\$44,420 00

COST OF ROAD AND EQUIPMENT.

Item.	Total Cost to June 30, 1888.	Total Cost to June 30, 1889.
Construction :		
Purchase of Constructed Road.....	\$750,000 00	\$750,000 00
Equipment :		
Locomotives.....		18,349 80
Passenger Cars.....		13,247 08
Combination Cars.....		700 00
Freight Cars.....		67,685 00
Total Equipment.....		\$99,981 88

INCOME ACCOUNT.

Gross Earnings from Operation.....	\$22,931 31	
Less Operating Expenses.....	15,170 22	
Income from Operation.....		\$7,759 09
Deductions from Income		
Interest on Funded Debt Accrued.....	\$10,500 00	
Salaries and Maintenance of Organization.....	15,170 22	

EARNINGS FROM OPERATION.

Item.	Total Receipts.	Deductions Account of Repayments, Etc.	Actual Earnings.
Passenger :			
Passenger Revenue.....	\$8,200 63		
Less Repayments :.....		\$1,142 36	
Tickets Redeemed.....		8 55	
Total Deductions.....		\$1,150 91	
Total Passenger Revenue.....			\$7,049 72
Mail.....			462 80
Express.....			143 80
Extra Baggage and Storage.....			27 27
Total Passenger Earnings.....			\$7,683 59
Freight :			
Freight Revenue.....	\$26,337 07		
Less Repayments.....		\$13,542 81	
Other Repayments.....		53 66	
Total Deductions.....		\$13,596 47	
Total Freight Revenue.....			\$12,740 60
Total Freight Earnings.....			\$12,740 60
Total Passenger and Freight Earnings.....			\$20,424 19
Other Earnings from Operation :			
Car Mileage—Balance.....			2,331 60
Telegraph Companies.....			173 52
Total Other Earnings.....			2,505 12
Total Gross Earnings from Operation.....			\$22,929 31

OPERATING EXPENSES.

Item.	Chargeable to Passenger Traffic.	Chargeable to Freight Traffic.	Total.
Maintenance of Way and Structures :			
Repairs of Roadway	\$1,973 07	\$986 53	\$2,959 60
Total	\$1,973 07	\$986 53	\$2,959 60
Maintenance of Equipment :			
Repairs and Renewals of Locomotives	\$1,621 99	\$811 00	\$2,432 99
Repairs and Renewals of Passenger Cars	2,791 93		2,791 93
Repairs and Renewals of Freight Cars		349 48	349 48
Total	\$4,652 96	\$1,280 01	\$5,932 97
Conducting Transportation :			
Wages of Enginemen, Firemen, and Round-housemen	\$771 96	\$385 98	\$1,157 94
Fuel for Locomotives	842 40	421 60	1,263 60
All other supplies for Locomotives	141 00	70 50	211 50
Wages of other Trainmen	481 88	240 94	722 82
All other Train Supplies	152 36	66 29	198 85
Expense of Telegraph, including Train Dispatchers and Operators	32 00	16 00	48 00
Wages of Station Agents, Clerks and Laborers	341 15	170 58	511 73
Station Supplies	133 15	66 58	199 73
Loss and Damage		32 31	32 31
Other Expenses	38 00	19 00	57 00
Total	\$2,914 10	\$1,489 38	\$4,403 48
General Expenses :			
Salaries of Officers	\$733 33	\$366 67	\$1,100 00
Salaries of Clerks	100 00	50 00	150 00
General Office Expenses and Supplies	73 81	36 01	110 72
Advertising	18 33	9 17	27 50
Insurance	176 09	88 04	264 13
Stationery and Printing	105 17	52 58	157 75
Other General Expenses	42 71	21 36	64 07
Total	\$1,249 44	\$624 73	\$1,874 17

OPERATING EXPENSES.—Continued.

Item.	Chargeable to Passenger Traffic.	Chargeable to Freight Traffic.	Total.
Recapitulation of Expenses :			
Maintenance of Way and Structures.....	\$1,973 07	\$ 986 53	\$2,959 60
Maintenance of Equipment.....	4,652 96	1,280 01	5,932 97
Conducting Transportation.....	2,914 10	1,489 38	4,403 48
General Expenses.....	1,249 44	624 73	1,874 17
Grand Total.....	10,789 57	\$4,380 65	\$15,170 22

Percentage of Operating Expenses to Earnings.....66.16

CASH STATEMENT OF FINANCIAL OPERATIONS FOR
THE YEAR.

Resources to Account For.	Item.
Net Income :	
From Operation.....	\$7,759 09
Total.....	\$7,759 09
Grand Total.....	\$7,759 09

IMPORTANT CHANGES DURING THE YEAR.

Upper Coös Railroad put in operation January 1st, 1889.

CONTRACTS, AGREEMENTS, ETC.

American Express Company. Agreed rate: 16 cents per 100 lbs.

U. S. Mails. Usual contract to W. Stewartstown, 21.23 miles, at \$43.60.

SECURITY FOR FUNDED DEBT.

Class of Bond or Obligation.	WHAT ROAD MORTGAGED.		Miles.	Amount of Mortgage Per Mile of Line.
	From	To		
U. C. R. R. 1st Mtge.	No. Stratford	Beecher Falls	22.87	\$15,303 88

EMPLOYES AND SALARIES.

Class.	Number.	Total Yearly Compensation.	Average Daily Compensation.
General Officers :			
Superintendent	1	\$1,200 00	
Cashier and Auditor	1	1,200 00	
General Office Clerks	1	150 00	96
Station Agents	3	1,168 80	1 27
Enginemen	2	1,716 00	2 75
Firemen	2	873 60	1 40
Conductors	2	1,524 00	2 44
Other Trainmen	2	873 60	1 40
Machinists	1	624 00	2 00
Carpenters	1	780 00	2 50
Other Shopmen	1	720 00	2 31
Section Foremen	5	468 00	1 50
Other Trackmen	10	374 40	1 20
Switchmen, Flagmen and Watchmen	1	358 80	1 15
All other Employes and Laborers	3	1,341 60	1 57
Total	36	\$13,372 80	
Distribution of Above :			
General Administration			\$2,550 00
Maintenance of Way and Structures			2,542 80
Maintenance of Equipment			2,124 00
Conducting Transportation			6,156 00
Total			\$13,372 80

PASSENGER, FREIGHT AND TRAIN MILEAGE.

Item.	Column for Ton- nage, Number Passengers, Number Trains, Mileage, Number Cars.	COLUMN FOR REVENUE AND RATES.		
		Dolls.	Cts.	Mills.
Passenger Traffic :				
Number of passengers carried earning revenue.....	11,114			
Number of passengers carried one mile.....	146,869		40	80
Average distance carried.....	117			
Total passenger revenue.....		7,049	72	
Average amount received from each passenger.....			63	043
Average receipts per passenger per mile.....			4	80
Estimated cost of carrying each passenger one mile.....			1	45
Passenger Earnings per mile of road.....		3	11	990
Passenger Earnings per train mile.....			51	380
Freight Traffic :				
Number of tons carried of freight earning revenue.....	17,887			
Number of tons carried one mile.....	236,336			
Average distance haul of one ton.....	187			
Total freight revenue.....		12,740	60	
Average amount received for each ton of freight.....			71	220
Average receipts per ton per mile.....			5	390
Estimated cost of carrying one ton one mile.....			2	390
Freight earnings per mile of road.....		5	63	740
Freight earnings per train-mile.....		1	05	350
		1	33	381
Passenger and Freight :				
Passenger and Freight earnings.....		19,790	32	
Passenger and Freight earnings per mile of road.....			75	670
Expense per mile of road.....		8	71	240
Total earnings per mile of road, including Mails, Express, etc.....		6	14	570
		10		
Number of passenger trains....	4			
Number of mixed trains.....	2			

PASSENGER, FREIGHT AND TRAIN MILEAGE.—Continued.

Item.	Column for Tonnage, Number Passengers, Number Trains, Mileage, Number Cars.
Train Mileage :	
Miles run by passenger trains.....	13,104
Miles run by mixed trains.....	6,552
Total Mileage Trains Earning Revenue.....	19,656

FREIGHT TRAFFIC MOVEMENT.

Commodity.	Freight Originating on this Road. Whole Tons.	Freight Received From Con'ect'g Roads and other Carriers. Whole Tons.	TOTAL FREIGHT TONNAGE, Whole Tons.
Products of Agriculture :			
Grain		748	748
Flour		246	246
Hay	96		96
Fruit and Vegetables.....	568		568
Products of Animals :			
Live Stock.....	231	77	308
Wool	10		10
Hides and Leather.....	10		10
Products of Forest :			
Lumber.....	1,532	5,694	7,226
Manufactures :			
Household Goods and Furniture	4		4
Merchandise	444	971	1,415
Total Tonnage.....	2,895	7,736	11,531

DESCRIPTION OF EQUIPMENT.

Item.	Total Number at End of Year.	EQUIPPED WITH TRAIN BRAKE.		CARS FITTED WITH AUTOMATIC COUPLER.	
		No.	Kind.	No.	Kind.
Locomotives :					
Passenger	1	1	West house		
Freight	2	1	"		
Total	3				
Cars in Passenger Ser- vice :					
First-class Passenger Cars	2			2	Miller.
Combination Passenger Cars	2			2	"
Total	4				
Cars in Freight Service :					
Box Cars	90				
Flat Cars	99				
Stock Cars	10				
Refrigerator Cars	1				
Grand Total.	200				

MILEAGE.

Line in Use.	Main Line Owned.
Miles of Single Track	22.87
Miles of Yard Track, Sidings and Spurs	.20
Total Mileage Operated (all track)	23.07

MILEAGE OF LINE BY STATES AND TERRITORIES.

State or Territory.	Main Line Owned.	RAILS.
		Steel.
New Hampshire.....	21.10	21.10
Vermont.....	1.97	1.97
Total Mileage Operated (single tracks).....	23.07	23.07

CONSUMPTION OF FUEL BY LOCOMOTIVES.

Locomotives.	WOOD—CORDS.		Total Fuel Consumed. Tons.	Miles Run.	Average Pounds Consumed per Mile.
	Hard.	Soft.			
Passenger.....	234	78	195	13,100	29.76
Freight.....	117	98	98	6,552	29.91
Total.....	351	117	293	19,656	29.86

CHARACTERISTICS OF ROAD.

Bridges :

Number Wooden..... 4

Trestles :

Number..... 1
 Aggregate length..... 60 feet.

Gauge of Track : 4 feet 8½ inches.

Telegraph : temporary.

Owned by this Company..... 10 miles of line.
 Owned by this Company..... 10 miles of wire.
 Operated by this Company..... 22.87 miles of line.
 Operated by this Company..... 22.87 miles of wire.

STATE OF NEW HAMPSHIRE, } ss :
County of Coos, }

We, the undersigned, Geo. Van Dyke, President, and James P. Cook, Treasurer, of the Upper Coos R. R. Company, on our oath do severally say that the foregoing return has been prepared, under our direction, from the original books, papers, and records of said Company; that we have carefully examined the same, and declare the same to be a complete and correct statement of the business and affairs of said Company in respect to each and every matter and thing therein set forth, to the best of our knowledge, information, and belief; and we further say that no deductions were made before stating the gross earnings or receipts herein set forth, except those shown in the foregoing accounts; and that the accounts and figures contained in the foregoing return embrace all of the financial operations of said Company during the period for which said return is made.

GEORGE VAN DYKE, *President.*

JAMES P. COOK, *Treasurer.*

Subscribed and Sworn to before me,
this 29th day of March, 1890.

JOHN C. HUTCHINS,
Justice of the Peace.

ANNUAL REPORT OF THE VERMONT VALLEY RAILROAD COMPANY OF 1871,

FOR THE YEAR ENDING JUNE 30, 1889.

HISTORY.

Name of common carrier making this report: Vermont Valley Railroad Company of 1871.

Date of organization: 3d July, 1871.

Organized under Vermont General Laws.

Name of original corporation: Vermont Valley Railroad, chartered 8th November, 1848, under laws of State of Vermont.

ORGANIZATION.

Names of Directors.	Post-office Address.	Date of Expiration of Term.
A. B. Harris	New York	June, 1890.
H. C. Robinson	Hartford, Conn.	
Oscar Edwards	Northampton, Mass.	
Frederick Billings	Woodstock, Vt.	
Hugh Henry	Chester, Vt.	
J. H. Williams	Bellows Falls, Vt.	
H. E. Folsom	Lyndonville, Vt.	

Total number of stockholders at date of last election: 53.

Date of last meeting of stockholders for election of directors: 19th June, 1889.

Post-office address of general office: 45 Broadway, New York.

Post-office address of operating office: Springfield, Mass.

OFFICERS.

President—A. B. Harris, 45 Broadway, New York.

Clerk—J. H. Williams, Bellows Falls, Vt.

Treasurer—J. H. Williams, Bellows Falls, Vt.

Assistant Treasurer—Seth Hunt, Springfield, Mass.

Cashier—Geo. E. Frink, Springfield, Mass.

Chief Engineer—E. T. Clark, Springfield, Mass.

Auditor—W. H. Wilson, Springfield, Mass.

General Freight Agent—H. E. Howard, Springfield, Mass.

General Ticket Agent—E. C. Watson, Springfield, Mass.

General Superintendent—J. Mulligan, Springfield, Mass.

Assistant Superintendent—J. E. Goodwin, Bellows Falls, Vt.

General Baggage Agent—W. E. Hill, Springfield, Mass.

PROPERTY OPERATED.

Name.	TERMINALS.		Miles of Line for Each Road Named.	Miles of Line for Each Class of Roads Named.
	From	To		
Vt. Valley R. R. Co. of 1871...	Brattleboro, Vt.	Bellows Falls, Vt.	24	24
Total.....	-----	-----	24	24

CAPITAL STOCK.

Description.	Par Value of Shares.	Total Par Value Authorized.	Total Amount Issued and Outstanding.	DIVIDENDS DECLARED DURING YEAR.	
				Rate.	Amount
Capital Stock, Com.	\$50	\$1,000,000	\$1,000,000	6%	\$60,000
Total.....		\$1,000,000	\$1,000,000		\$60,000

Manner of Payment for Capital Stock.	Number of Shares.	Total Cash Realized.
Issued for Cash: Common.....	20,000	\$1,000,000
Total.....	20,000	\$1,000,000

FUNDED DEBT.

Classes of Bond or Obligation.	TIME.		Amount of Authorized Issued.	Amount Issued.	Amount Outstanding.	INTEREST.	
	Date of Issue.	When Due.				Amount Accrued During Year.	Amount Paid During Year.
First Mortgage	1880.	1910.	\$800,000	\$800,000	\$800,000	\$40,000	\$40,000
Total....			\$800,000	\$800,000	\$800,000	\$40,000	\$40,000

Interest Payable April and October, at 5 per cent.

RECAPITULATION OF FUNDED DEBT.

Account.	Amount Issued.	Amount Outstand- ing.	INTEREST.	
			Amount Accrued During Year.	Amount Paid During Year.
Bonds	\$800,000	\$800,000	\$40,000	\$40,000
Total	\$800,000	\$800,000	\$40,000	\$40,000

CURRENT ASSETS AND LIABILITIES.

Cash and Current Assets Available for Payment of Current Liabilities.

Cash	\$ 301 25
Due from Solvent Companies and Individuals	122,056 33
Total	\$122,357 58

Current Liabilities Accrued to and Including June 30, 1889.

Loans and Bills Payable	\$ 45,000 00
Audited Vouchers and Accounts	16,875 00
Dividends not called for	301 25
Balance—Cash Assets	60,181 33
Total	\$122,357 58

RECAPITULATION.

Account.	Total Amount Outstand- ing.	Apportion- ment to Railroads.	AMOUNT PER MILE OF ROAD.	
			Miles.	Amount.
Capital Stock	\$1,000,000	\$1,000,000	24	\$41,666 66½
Bonds	800,000	800,000	24	33,333 33½
Total	\$1,800,000	\$1,800,000	24	\$75,000 00

RECAPITULATION.—Continued.

For Mileage Operated by Road Making this Report, (Trackage Rights excluded) the Operations of which are Included in the Income Account.

Name of Road.	Capital Stock.	Funded Debt.	Total.	AMOUNT PER MILE OF ROAD.	
				Miles.	Amount.
Vt. Valley R. R. Co. of 1871....	\$1,000,000	\$800,000	\$1,800,000	24	\$75,000
Total.....	\$1,000,000	\$800,000	\$1,800,000	24	\$75,000

PERMANENT IMPROVEMENTS FOR THE YEAR.

Item.	Credits Property and Material Sold.	Differences or Net Additions to Property, Etc.
Equipment:		
Locomotives.....	\$405 03	\$405 03
Total Equipment.....	\$405 03	\$405 03
Grand Total Equipment.....	\$405 03	\$405 03

COST OF ROAD AND EQUIPMENT.

Item.	Total Cost to June 30, 1888.	Net Additions During Year.	Total Cost to June 30, 1889.	Cost Per Mile.
Total Construction..	\$ 972,251 00		\$ 972,251 00	\$40,510 46
Total Equipment....	\$ 63,453 87	\$405 03	\$ 63,048 84	\$ 2,627 03
Grand Total Cost Construction and Equipment.	\$1,035,704 87	\$405 03	\$1,035,299 84	\$43,137 49

INCOME ACCOUNT.

Gross Earnings from Operation.....	\$181,800 67	
Less Operating Expenses.....	115,931 00	
Income from Operation.....		\$ 65,869 67
Dividends on Stocks owned.....	\$40,000 00	
Rentals of Tracks, Yards, and Terminals.....	600 00	
Miscellaneous Income—less Expenses.....	4,834 85	
Income from Other Sources.....		45,434 85
Total Income.....		\$111,304 52
Deductions from Income:		
Interest on Funded Debt, Accrued.....	\$40,000 00	
Interest on Interest-bearing Current Liabilities Accrued, not otherwise provided for.....	4,250 07	
Rentals, including Tracks, Yards, and Terminals.....	2,000 00	
Taxes.....	4,930 50	
Total Deductions from Income.....		51,180 57
Net Income.....		\$60,123 95
Dividends, 6 per cent, Common Stock.....	\$60,000 00	
Total.....		60,000 00
Surplus from Operations of Year ending June 30, 1889.....		\$ 123 95
Surplus on June 30, 1888.....		96,114 76
Surplus on June 30, 1889.....		\$ 96,238 71

EARNINGS FROM OPERATION.

Item.	Total Receipts.	Deductions Account of Repayments, Etc.	Actual Earnings.
Passenger :			
Passenger Revenue.....	\$77,786 46		
Tickets redeemed.....		\$ 25 94	
Excess Fares refunded.....		98 20	
Other repayments.....		81 40	
Total Deductions.....		\$205 54	

EARNINGS FROM OPERATION.—Continued.

Item.	Total Receipts.	Deductions Account of Repayments, Etc.	Actual Earnings.
Total Passenger Revenue			\$ 77,580 92
Mail			4,670 72
Express			3,360 00
Total Passenger Earnings			\$ 85,611 64
Freight :			
Freight Revenue	\$101,131 18		
Less Repayments :			
Overcharge to Shippers		\$1,013 89	
Other repayments		3,928 26	
Total Deductions		\$4,942 15	
Total Freight Revenue			\$ 96,189 03
Total Freight Earnings			\$ 96,189 03
Total Passenger and Freight Earnings			\$181,800 67
Total Gross Earnings from Operation			\$181,800 67

STOCKS OWNED.

Name.	Total Par Value.	Rate Per Cent.	Income or Dividend Received.
Sullivan County Railroad	\$800,000	5	\$40,000
Total	\$800,000		\$40,000

RENTALS RECEIVED.

Designation of Property.	Situation of Property Leased.	Name of Company Using Property Leased.	Total.
Tracks:	Brattleboro, Vt.	Brattleboro & Whitehall R.	
Total			\$600
Grand Total Rentals Received			\$600

MISCELLANEOUS INCOME.

Item.	Gross Income.	Net Miscellaneous Income.
Interest	\$4,500 00	\$4,500 00
Rent of Real Estate	334 85	334 85
Total	\$4,834 85	\$4,834 85

OPERATING EXPENSES.

Item.	Chargeable to Passenger Traffic.	Chargeable to Freight Traffic.	Total.
Maintenance of Way and Structures :			
Repairs of Roadway	\$12,219 46	\$ 8,561 94	\$20,781 40
Renewals of Rails	450 50	315 66	766 16
Renewals of Ties	3,533 94	2,476 17	6,010 11
Repairs of Bridges and Culverts	2,864 35	2,007 00	4,871 35
Repairs of Fences, Road-crossings, Signs and Cattle-guards	1,160 86	813 39	1,974 25
Repairs of Buildings	1,157 41	810 98	1,968 39
Total	\$21,386 52	\$14,985 14	\$36,371 66
Maintenance of Equipment :			
Repairs and Renewals of Locomotives	\$ 3,044 97	\$2,133 55	\$5,178 52
Repairs and Renewals of Passenger Cars	545 83		545 83
Repairs and Renewals of Freight Cars		3,818 87	3,818 87
Total	\$ 3,590 80	\$5,952 42	\$9,543 22
Conducting Transportation :			
Wages of Enginemen, Firemen, and Round-house-men	\$ 5,555 61	\$ 3,878 69	\$ 9,434 30
Fuel for Locomotives	12,425 63	8,706 39	21,132 02
Water-supply for Locomotives	572 92	401 44	974 36

OPERATING EXPENSES.—Continued.

Item.	Chargeable to Passenger Traffic.	Chargeable to Freight Traffic.	Total.
All other Supplies for Locomotives	\$ 398 30	\$ 279 08	\$ 677 38
Wages of other Trainmen ..	2,524 44	6,824 06	9,348 50
All other Train Supplies	44 98	93 47	138 45
Expense of Telegraph, including Train Dispatchers and Operators	155 94	109 26	265 20
Wages of Station Agents, Clerks and Laborers	4,563 40	3,197 48	7,760 88
Station Supplies	672 15	470 97	1,143 12
Car Mileage—Balance	2,089 68	9,174 83	11,264 51
Total	\$28,983 05	\$33,135 67	\$62,118 72
General Expenses :			
Salaries of Officers	\$3,425 61	\$2,400 25	\$5,825 86
Salaries of Clerks			
Agencies, including Salaries and Rent			
Advertising	243 19	170 40	413 59
Insurance	178 75	125 25	304 00
Legal Expenses	132 95	93 15	226 10
Stationery and Printing	498 28	349 13	847 41
Other General Expenses	164 90	115 54	280 44
Total	\$4,643 68	\$3,253 72	\$7,897 40
Recapitulation of Expenses :			
Maintenance of Way and Structures	\$21,386 52	\$14,985 14	\$36,371 66
Maintenance of Equipment	3,590 80	5,952 42	9,543 22
Conducting Transportation	28,983 05	33,135 67	62,118 72
General Expenses	4,643 68	3,253 72	7,897 40
Grand Total	\$58,604 05	\$57,326 95	\$115,931 00
Percentage of Operating Expenses to Earnings	63.77%		

RENTS PAID FOR LEASE OF OTHER PROPERTY.

Designation of Property.	Situation of Property Leased.	Name of Company Owning Property Leased.	Total.
Tracks	Brattleboro, Vt.	Central Vt. R.R.	
Grand Total Rentals Paid.			\$2,000

GENERAL BALANCE SHEET.

Cost of Road	\$ 972,251 00	Capital Stock	\$1,000,000 00
Cost of Equipment...	63,048 84		
Stocks of other Companies Owned	800 000 00	Funded Debt	800,000 00
Cash and Current Assets	122,357 58	Current Liabilities...	62,176 25
Profit and Loss	757 54		
		Profit and Loss, Income Account	96,238 71
Total	\$1,958,414 96	Total	\$1,958,414 96

CONTRACTS, AGREEMENTS, ETC.

American Express Company: Express privileges, \$3,360 per annum.
 United States Post-office Department: Carrying mails, \$4,670.73 per annum.

PASSENGER, FREIGHT AND TRAIN MILEAGE.

Item.	Column for Tonnage, Number Passengers, Number Trains, Mileage, Number Cars.	COLUMN FOR REVENUE AND RATES.		
		Dollars.	Cts.	Mills.
Passenger Traffic:				
Number of passengers carried earning revenue	114,432			
Number of passengers carried one mile	2,428,989			
Average distance carried	21.23			
Total passenger revenue		77,580	92	

PASSENGER, FREIGHT, AND TRAIN MILEAGE.—Continued.

Item.	Column for Ton- nage, Number Passengers, Number Trains, Mileage, Number Cars.	COLUMN FOR REV- ENUE AND RATES.		
		Dollars.	Cts.	Mills.
Average amount received from each passenger.....			67	796
Average receipts per passenger per mile.....			03	193
Estimated cost of carrying each passenger one mile.....			02	412
Passenger earnings per mile of road.....		3,232	53	833
Passenger earnings per train mile.....		1	21	223
Freight Traffic:				
Number of tons carried of freight earning revenue....	399,298			
Number of tons carried one mile.....	9,260,838			
Average distance haul of one ton.....	23.19			
Total freight revenue.....		96,189	03	
Average amount received for each ton of freight.....			24	089
Average receipts per ton per mile.....			01	038
Estimated cost of carrying one ton one mile.....			00	619
Freight earnings per mile of road.....		4,007	87	625
Freight earnings per train mile.....		2	14	439
Passenger and freight:				
Passenger and freight earnings.....		173,769	95	
Passenger and freight earnings per mile of road.....		7,240	41	458
Expense per mile of road.....		4,830	45	833
Total earnings per mile of road, including Mails, Express, etc.....		7,575	02	791

PASSENGER, FREIGHT, AND TRAIN MILEAGE.—Continued.

Item.		Column for Ton- nage, Number Passengers, Number Trains, Mileage, Number Cars.
Number of passenger trains.....		2,666.58
Number of freight trains.....		1,869
Train Mileage:		
Miles run by passenger trains.....		63,998
Miles run by freight trains.....		44,856
Total Mileage Trains Earning Revenue....		108,854
Miles run by switching trains.....		22,588
Miles run by construction and other trains....		8,306
Grand Total Train Mileage.....		139,748
Average number of loaded cars in train.....		20
Average number of tons of freight in train....		213.64
Average number of tons of freight in each loaded car.....		10.68

DESCRIPTION OF EQUIPMENT.

Item.	Total Number at End of Year.	EQUIPPED WITH TRAIN BRAKE.		CARS FITTED WITH AUTOMATIC COUPLER.	
		No.	Kind.	No.	Kind.
Locomotives:					
Passenger	2	2	West'ghouse.		
Freight	3				
Switching	1				
Total	6	2			
Cars in Passenger Service:					
First-class Pas- senger Cars...	1	1	West'ghouse.	1	Miller.
Baggage, Express and Postal Cars	1	1	"	1	"
Total	2	2		2	

DESCRIPTION OF EQUIPMENT.—Continued.

Item.	Total Number at End of Year.	EQUIPPED WITH TRAIN BRAKE.		CARS FITTED WITH AUTOMATIC COUPLER.	
		No.	Kind.	No.	Kind.
Cars in Freight Service:					
Box Cars.....	17				
Flat Cars.....	4				
Other Cars.....	7				
Total.....	28				
Total Owned..	30				
Grand Total...	30	2		2	

MILEAGE.

Line in Use.	Main Line Owned.	Total Mileage Operated.	RAILS.	
			Iron.	Steel.
Miles of single track.....	24	24		24
Miles of second track.....	2.50	2.50	2.50	
Miles of yard track, sidings & spurs	1	1	1	
Total Mileage Operated (all tracks).	27.50	27.50	3.50	24

MILEAGE OF LINE BY STATES AND TERRITORIES.

State or Territory.	Main Line Owned.	Total Mileage, Excluding Trackage Rights.	RAILS.	
			Iron.	Steel.
Vermont.....	27.50	27.50	3.50	24
Total Mileage Operated (single track)	27.50	27.50	3.50	24

MILEAGE OWNED BY ROAD MAKING THIS REPORT.

Vermont.....	27.50	27.50	3.50	24
Total Mileage Owned (single track).	27.50	27.50	3.50	24

RENEWALS OF RAILS AND TIES.

NEW RAILS LAID DURING YEAR.				NEW TIES LAID DURING YEAR.		
Kind.	Tons.	Weight Per Yard.	Average Price per Ton at Distributing Point.	Kind.	Number.	Average Price at Distributing Point.
Steel	90	66 lbs.	\$34 73	Chest-nut...	15,525	40
Total Steel	90	66 lbs.	\$34 73	Total	15,525	40

CONSUMPTION OF FUEL BY LOCOMOTIVES.

Locomotives.	COAL—TONS.	WOOD—CORDS.	Total Fuel Consumed —Tons.	Miles Run.	Average Pounds Consumed Per Mile.
	Bituminous.	Hard.			
Total	5,076	4	5,079	139,748	81.41
Average Cost at Distributing Point...	\$4 16	\$4 50			

CHARACTERISTICS OF ROAD.

Bridges :

Number Stone	3
Number Iron	3
Number Wooden	2

Tunnels :

Number	1
Maximum length	279 feet.
Minimum length	279 "
Aggregate length of all Tunnels	279 "

Gauge of Track : 4 feet 8½ inches.

Telegraph :

Operated by Western Union Telegraph Company, 24 miles of line.

STATE OF MASSACHUSETTS, }
County of Hampden. } ss.

We, the undersigned, A. B. Harris, President, and W. H. Wilson, Auditor, of the Vermont Valley Railroad Company of 1871, on our oath do severally say that the foregoing return has been prepared, under our direction, from the original books, papers, and records of said Company; that we have carefully examined the same, and declare the same to be a complete and correct statement of the business and affairs of said Company in respect to each and every matter and thing therein set forth, to the best of our knowledge, information, and belief; and we further say that no deductions were made before stating the gross earnings or receipts herein set forth, except those shown in the foregoing accounts; and that the accounts and figures contained in the foregoing return embrace all of the financial operations of said Company during the period for which said return is made.

A. B. HARRIS, *President.*

W. H. WILSON, *Auditor.*

Subscribed and sworn to before me,
this 3d day of October, 1889.

G. E. FRINK,

Justice of the Peace.

ANNUAL REPORT

OF THE

WOODSTOCK RAILROAD COMPANY,

FOR THE YEAR ENDING JUNE 30, 1889.

HISTORY.

Name of common carrier making this report: Woodstock Railroad Company.

Date of organization: January 9, 1867.

Organized under the Law of Vermont.

Not a consolidated company.

Operated by the Woodstock Railroad Company.

ORGANIZATION.

Names of Directors.	Post-Office Address.
Frederick Billings.....	Woodstock, Vt.
S. S. Thompson.....	Lyndonville, Vt.
Lewis Pratt.....	Woodstock, Vt.
F. N. Billings.....	" " "
Justin F. McKenzie.....	" " "
Wm. C. Raymond.....	Bridgewater, Vt.
John J. Dewey.....	Quechee, Vt.

Post-office address of general office: Woodstock, Vt.

Post-office address of operating office: Woodstock, Vt.

OFFICERS.

President—Frederick Billings, Woodstock, Vt.

Vice-President—J. F. McKenzie, Woodstock, Vt.

Secretary—Charles P. Marsh, Woodstock, Vt.

Treasurer—J. G. Porter, Woodstock, Vt.

Auditor—F. N. Billings, Woodstock, Vt.

Auditor—Lewis Pratt, Woodstock, Vt.

General Manager—S. S. Thompson, Lyndonville, Vt.

Traffic Manager—J. G. Porter, Woodstock, Vt.

General Passenger Agent— }
 General Superintendent— } J. G. Porter, Woodstock, Vt.
 General Baggage Agent— }

PROPERTY OPERATED.

Name.	TERMINALS.		Miles of Line for Each Road Named.	Miles of Line for Each Class of Roads Named.
	From	To		
Woodstock.	Woodstock.	White River Junc.	14	14

CAPITAL STOCK.

Description.	Total Par Value Authorized.	Total Amount Issued and Outstanding.
Capital Stock : Common.....	\$260 000	\$260 000
Total.....	\$260 000	\$260 000

FUNDED DEBT.

Class of Bond or Obligation.	Time.		Amount of Authorized Issue.	Amount Issued.	Interest.			
	Date of Issue.	When Due.			Rate per Cent.	When Payable.	Amount Accrued During Year.	Amount Paid During Year.
First Mortgage.	Apr 15, 1875	Apr 15, 1890	\$250 000	\$250 000	7	April and October.	\$17,500	17,500

Bonds issued.

Interest 7 per cent. semi-annually.

Interest guaranteed for 15 years, which time expires April 15, 1890.

Net earnings applied in payment of interest on bonds.

Deficit paid by town of Woodstock.

CURRENT ASSETS AND LIABILITIES.

Cash and Current Assets Available for Payment of Current Liabilities.		Current Liabilities Accrued to and Including June 30, 1889.	
Cash.....	\$ 3,207 01	Loans and Bills Pay- able	\$34,205 98
Balance—Current Liabilities.....	30,998 97	Total	\$34,205 98
Total	\$34,205 98		

COST OF ROAD AND EQUIPMENT.

Item.	Total Cost to June 30, 1888.	Total Cost to June 30, 1889.
Construction	\$510,000	\$510,000
Total Construction.....	\$510,000	\$510,000

INCOME ACCOUNT.

Gross Earnings from Operation	\$26,157 68	
Less Operating Expenses	17,460 85	
Income from Operation.....		\$8,696 83
Miscellaneous Income—less Expenses.....	1,029 79	
Income from Other Sources.....		1,029 79
Total Income.....		\$9,726 62
Interest on Funded Debt Accrued.....	17,500 00	
Total Deduction from Income.....	\$17,500 00	
Deficit*		\$7,773 38

* Assumed and paid by the town of Woodstock.

EARNINGS FROM OPERATION.

Item.	Total Receipts.	Actual Earnings.
Passenger :		
Passenger Revenue	\$9,999 38	
Mail	\$642 00	
Express	720 00	
Total Passenger Earnings		\$11,361 38
Freight :		
Freight Revenue	\$14,796 30	
Total Freight Revenue		\$14,796 30
Total Passenger and Freight Earnings		\$26,157 68

MISCELLANEOUS INCOME.

Item.	Net Miscellaneous Income.
Old Rails	\$1,029 79

OPERATING EXPENSES.

Item.	Total.
Maintenance of Way and Structure :	
Repairs of Roadway	\$4,784 38
Renewal of Ties	1,104 38
Repairs of Bridges and Culverts	150 00
Repairs of Fences, Road-crossings, Signs and Cattle-guards	115 00
Repairs of Buildings	50 00
Total	\$6,203 76

OPERATING EXPENSES.—Continued.

Item.	Total.
Maintenance of Equipment :	
Repairs and Renewals of Locomotives.....	\$ 1,200 00
Repairs and Renewals of Passenger Cars.....	159 85
Other Expenses.....	45 00
Total.....	\$1,404 85
Conducting Transportation :	
Wages of Enginemen, Firemen, and Round-housemen	\$ 1,375 00
Total Fuel.....	2,555 96
Water-supply for Locomotives.....	10 00
All other Supplies for Locomotives.....	128 00
Wages of Other Trainmen.....	1,029 77
All other Train Supplies.....	20 00
Wages of Station Agents, Clerks, and Laborers.....	1,538 00
Station Supplies.....	40 00
Car Mileage—Balance.....	317 14
Loss and Damage.....	5 75
Total.....	\$ 7,019 62
General Expenses:	
Salaries of Officers.....	\$ 1,200 00
Advertising.....	18 00
Insurance.....	182 75
Stationery and Printing.....	108 72
Terminal Facilities, White River Junction.....	800 00
Total.....	\$ 2,309 47
Recapitulation of Expenses:	
Maintenance of Way and Structures.....	\$ 6,203 76
Maintenance of Equipment.....	1,404 85
Conducting Transportation.....	7,019 62
General Expenses.....	2,309 47
Taxes.....	523 15
Grand Total.....	\$17,160 85

RENTS PAID FOR LEASE OF OTHER PROPERTY.

Terminal Facilities, White River Junction..... \$800 00

GENERAL BALANCE SHEET.

Cost of Road	\$ 510,000	Capital Stock	\$ 260,000 00
Deficit Continued from 1888, with Accrued Interest	30,998 97	Funded Debt.....	250,000 00
		Current Liabilities	30,998 97
Total	\$540,998 97	Total	\$540,998 97

PASSENGER, FREIGHT, AND TRAIN MILEAGE.

Item.	Column for Tonnage, Number Passengers, Number Trains, Mileage, Number Cars.
Passenger Traffic—Mixed Trains :	
Number of passengers carried earning revenue.....	16,250
Number passengers carried one mile.....	275,498
Average distance carried	17 miles.
Total passenger revenue	\$9,999.38
Average amount received from each passenger.....	.62
Average receipts per passenger per mile.....	.03 11-17
Passenger earnings per mile of road.....	\$714.24
Passenger earnings per train-mile	.49
Freight Traffic :	
Number tons carried of freight earning revenue.....	13,536
Number tons carried one mile.....	160,349
Average distance haul of one ton.....	11 ½ miles.
Total freight revenue.....	\$14,796.30
Average amount received for each ton of freight	1.09
Average receipts per ton per mile.....	.09 ½
Freight earnings per mile of road	\$1,056.88
Freight earnings per train-mile	.72
Passenger and Freight :	
Passenger and freight earnings.....	\$24,795.68
Passenger and freight earnings per mile of road	1,771 12
Expense per mile of road.....	1,347 75
Total earnings per mile of road, including Mails, Express, etc.....	\$1,868.40
Number of passenger trains, } Number of freight trains, } Mixed Trains..... Number of mixed trains, }	1,293

PASSENGER, FREIGHT, AND TRAIN MILEAGE—Continued.

Item.	Column for Ton- nage, Number Passengers, Num- ber Trains, Mile- age, Number Cars.
Total Mileage :	
Miles run by mixed trains.....	20,500
Total Mileage Trains Earning Revenue.....	20,500
Miles run by switching trains.....	300
Grand Total Train Mileage.....	20,800

MILEAGE.

Item.	Main Line Owned.
Miles of Single Track.....	14
Miles of Yard Track, Sidings and Spurs.....	1
Total Mileage Operated (all tracks).....	15

RENEWALS OF RAILS AND TIES.

NEW TIES LAID DURING YEAR.

Kind.	Number.	Average Price at Distributing Point.
Cedar and Hemlock.....	3,000	\$.36 8-10

CONSUMPTION OF FUEL BY LOCOMOTIVES.

Hard wood, six hundred and seventy-four cords.

CHARACTERISTICS OF ROAD.

Bridges :

Number of wooden, one Howe truss.

Gauge of Track—Four feet, eight and one-half inches.

STATE OF VERMONT, }
County of Windsor, } ss.

I, the undersigned, Jas. G. Porter, Treasurer, of the Woodstock Railroad Company, on my oath do say that the foregoing return has been prepared, under my direction, from the original books, papers, and records of said Company; that I have carefully examined the same, and declare the same to be a complete and correct statement of the business and affairs of said Company in respect to each and every matter and thing therein set forth, to the best of my knowledge, information, and belief; and I further say that no deductions were made before stating the gross earnings or receipts herein set forth, except those shown in the foregoing accounts; and that the accounts and figures contained in the foregoing return embrace all of the financial operations of said Company during the period for which said return is made.

JAS. G. PORTER, *Treasurer*.

Subscribed and sworn to before me,
this 4th day of September, 1889.

LEWIS PRATT,

Notary Public.

ANNUAL REPORT
OF THE
ATLANTIC & ST. LAWRENCE RAILROAD,
UNDER LEASE TO THE
GRAND TRUNK RAILWAY COMPANY
OF CANADA.
Subsidiary Report,
FOR THE YEAR ENDING JUNE 30, 1890.

HISTORY.

Name of common carrier making this report : Atlantic & St. Lawrence Railroad Company.

Date of organization : September 27, 1845.

Chartered by the State of Maine, Feb. 10, 1845.

“ “ “ New Hampshire, June 30, 1847.

“ “ “ Vermont, Oct. 27, 1848.

Not a consolidated company.

Not reorganized.

Operated by the Grand Trunk Railway Company of Canada.

ORGANIZATION.

Names of Directors.	Post-office Address.	Date of Expiration of Term.
Sir Joseph Hickson.....	Montreal, Canada.....	First Tuesday in August, 1890, or until successors are elected.
Philip Henry Brown.....	Portland, Maine.....	
Sir Alexander T. Galt....	Montreal, Canada.....	
Harrison J. Libby.....	Portland, Maine.....	
Franklin R. Barrett.....	“ “	
Francis K. Swan.....	“ “	
George P. Wescott.....	“ “	
William L. Putnam.....	“ “	
W. W. Duffett.....	“ “	

Total number of stockholders at date of last election : 1,402.

Date of last meeting of stockholders for election of directors : August 6, 1889.

Post-office address of general office : Portland, Maine.

Post-office address of operating office : Montreal, Canada.

OFFICERS.

President—Sir Joseph Hickson, Montreal, Canada.

Vice-President—Philip H. Brown, Portland, Maine.

Secretary—Franklin R. Barret, Portland, Maine.

Treasurer—W. W. Duffett, Portland, Maine.

Operated by the lessees.

PROPERTY LEASED OR OTHERWISE ASSIGNED
FOR OPERATION.

Name.	TERMINALS.	
	From	To
Atlantic & St. Lawrence Railroad.	Portland, Maine,	Island Pond, Vt.
By What Company Operated.	Under What Kind of Contract Operated.	Miles of Line.
The Grand Trunk Railway Company of Canada.....	Lease for 999 years, from Aug. 5, 1853.	149.58
Total Mileage.....	.....	149.58

The Atlantic & St Lawrence Railroad was leased to The Grand Trunk Railway Company of Canada, for 999 years, from August 5, 1853. The Lessees assuming all obligations, and guaranteeing six per cent. interest per annum on the Capital Stock. The authority being granted for the lease by an Act of the Legislature of Maine, approved March 29, 1853, and by an Act of the Legislature of New Hampshire, of July 12, 1856.

CAPITAL STOCK.

Description.	Par Value of Shares.	Total Par Value Authorized.	Total Am't Issued and Outstanding.	DIVIDENDS DECLARED DURING YEAR.	
				Rate.	Amount.
Capital St'k U.S. C'y., Common Capital Stock Sterling.....	\$100 } £100 }	85,484,000 00	\$5,484,000 00	6%	\$329,040 00

FUNDED DEBT.

Class of Bond or Obligation.	TIME.		Amount of Authorized Issue.	Amount Issued.
	Date of Issue.	When Due.		
Company's First Mort- gage Bonds.....	Oct. 1, 1864.	5-20	\$1,500,000 00	\$1,499,916 00
Company's Second Mortgage Bonds.....	May 1, 1871.	5-20	713,000 00	712,932 00
Company's Third Mort- gage Bonds.....	July 1, In 20 1889. years.		787,000 00	786,984 00
Balance on exchange of Bonds.....				168 00
Total.....			\$3,000,000 00	\$3,000,000 00

Amount Outstanding, all.

RECAPITULATION OF FUNDED DEBT.

Account.	Amount Issued.
Bonds.....	\$3,000,000 00

Amount Outstanding, all.

RECAPITULATION.

A. FOR MILEAGE OWNED BY ROAD MAKING THIS REPORT.

Account.	Total Amount Outstanding.	AM'T PER MILE OF ROAD.	
		Miles.	Amount.
Capital Stock.....	\$5,484,000 00	149.58	\$836,714 00
Bonds.....	3,000,000 00	149.58	20,066 00
Total.....	\$8,484,000 00		

COST OF ROAD AND EQUIPMENT.

Item.	Total Cost to June 30, 1889.	Total Cost to June 30, 1890.	Cost Per Mile.
Total Cost Construction and Equipment.....	\$8,484,000 00	\$8,484,000 00	\$56,798 00

INCOME ACCOUNT.

Gross Earnings from Operation.....	\$1,063,757 63	
Less Operating Expenses.....	825,852 91	
Income from Operation.....		\$237,904 72
Deductions from Income and Guaranteed Dividends.....	\$480,602 00	
Taxes.....	18,344 21	
Total Deductions from Income...		\$498,946 21
Deficit.....		261,041 49
Deficit on June 30, 1889.....		261,041 49
Deficit from Operations of Year ending June 30, 1890.		261,041 49

The Lessees receive all income from, and pay all expenses of Road.

EARNINGS FROM OPERATION.

Item.	Actual Earnings.
Passenger:	
Passenger Revenue.....	\$273,498 14
Total Passenger Revenue.....	\$273,498 14
Mail	20,511 21
Express	18,695 39
Extra Baggage and Storage.....	
Total Passenger Earnings.....	\$312,704 74
Freight:	
Freight Revenue.....	\$748,745 20
Total Freight Revenue.....	\$748,745 20

EARNINGS FROM OPERATION.—Continued.

Item.	Actual Earnings.
Total Freight Earnings.....	\$748,745 20
Total Passenger and Freight Earnings	\$1,061,449 94
Other Earnings from Operation :	
Rentals not otherwise provided for	\$2,307 69
Total Other Earnings.....	\$2,307 69
Total Gross Earnings from Operation.....	\$1,063,757 63

OPERATING EXPENSES.

Item.	Total.
Maintenance of Way and Structures	\$195,469 01
Maintenance of Equipment.....	358,576 82
Conducting Transportation.....	228,715 88
General Expenses	43,091 20
Recapitulation of Expenses :	
Maintenance of Way and Structures	\$195,469 01
Maintenance of Equipment.....	358,576 82
Conducting Transportation.....	228,715 88
General Expenses.....	43,091 20
Grand Total.....	\$825,852 91

CONTRACTS, AGREEMENTS, ETC.

Contracts Made by the Lessees:

Express Contracts—Canadian Express Company pays 50 per cent. of gross receipts.

New England Despatch Company, between Portland and Lewiston, pays \$100 per month.

Merchants Express Company, between Portland and Lewiston, pays \$100 per month.

Mails—The United States Government pays \$22,289.20 per annum.
 Sleeping Cars—Contract with the Pullman Company. The cars are maintained by the Railway Company.
 Telegraph—Contract with the Great North Western Telegraph Company, who maintains the line and collects receipts from any public business done. The Railway pay the operators.

SECURITY FOR FUNDED DEBT.

Class of Bond or Obligation.	WHAT ROAD MORTGAGED.			Am't of M'tge Per Mile of Line.
	From	To	Miles.	
	Atlantic and St. Lawrence.			
Mortgage	Portland, Me.,	Island Pond, Vt.	149.58	\$20,066 00

Operated by Lessees, and all salaries paid by them.

PASSENGER, FREIGHT, AND TRAIN MILEAGE.

Item.	Column for Ton- nage, Number Passengers, Number Trains, Mileage, Number Cars.	COLUMN FOR REVENUE AND RATES.		
		Dollars.	Cts.	Mills.
Passenger Traffic:				
Number of passengers car- ried earning revenue...	345,659			
Number of passengers car- ried one mile.....	10,870,129			
Total passenger revenue.....		\$273,498	14	
Average amount received from each passenger.....			79	12
Average receipts per pas- senger per mile.....			2	52
Estimated cost of carrying each passenger one mile.....			2	8

PASSENGER, FREIGHT, AND TRAIN MILEAGE.—Continued.

Item.	Column for Ton- nage, Number Passengers, Number Trains, Mileage, Number Cars.	COLUMN FOR REVENUE AND RATES.		
		Dollars.	Cts.	Mills.
Freight Traffic:				
Number of tons carried of freight earning revenue	923,104			
Number of tons carried one mile.....	98,388,326			
Total freight revenue.....		\$748,745	20	
Average amount received for each ton of freight.....			81	11
Average receipts } Local.			1	41
per ton per mile } Thro'h			0	58
Estimated cost of carrying one ton one mile.....			0	50
Passenger and Freight:				
Passenger and freight earnings.....		\$1,022,243	34	
Train Mileage:				
Miles run by passenger trains.....	298,463			
Miles run by freight trains	501,723			
Miles run by mixed trains	153,209			
Total Mileage Trains Earning Revenue...	953,395			
Miles run by construction and other trains.....	279,084			
Grand Total Train Mileage.....	1,232,479			
Average number of freight cars in train.....	20			
Average number of loaded cars in train.....	20			
Average number of tons of freight in train.....	240			
Average number of tons freight in each loaded car.....	12			

No Equipment owned by this Company. Equipment furnished by the Lessees.

MILEAGE OWNED BY ROAD MAKING THIS REPORT.

State or Territory.	Main Line Owned.	Rails.
In the State of Maine.....	82.60	
In the State of New Hampshire.....	52.00	
In the State of Vermont.....	14.98	
Total Mileage Owned (single track)	149.58	Steel.

ACCIDENTS TO PERSONS IN VERMONT.

One person injured coupling cars. One killed by falling under the engine. One person injured by horse shying at train.

CHARACTERISTICS OF ROAD.

WORKING DIVISIONS OR BRANCHES.			ALIGNMENT.	
From	To	Miles.	Aggregate Length of Curved Line. Miles.	Length of Straight Line. Miles.
Portland, Maine,	Island Pond, Vt.	149.58	60.02	89.56

PROFILE.

Length of Level Line. Miles.	ASCENDING GRADES.		DESCENDING GRADES.	
	Sum of Ascents. Feet.	Aggregate Length of Ascending Grades. Miles.	Sum of Descents. Feet.	Aggregate Length of Descending Grades. Miles.
37.96	765	33.37	1,938	78.25

CHARACTERISTICS OF ROAD.—Continued.

Bridges :

Number Stone.....	2
Number Iron.....	45

Trestles :

Number Pile.....	1
------------------	---

Gauge of Track.....4 feet 8½ inches.

Telegraph :

Operated by this Company.....149.58 miles of line.

GENERAL INFORMATION.

Funded Debt in the hands of the Lessees.

STATE OF MAINE,)
County of Cumberland,) ss.

We, the undersigned, Philip Henry Brown, Vice President, and W. W. Duffett, Treasurer, of the Atlantic and St. Lawrence Railroad Company, on our oath do severally say that the foregoing return has been prepared, under our direction, from the original books, papers, and records of said Company, and statements received from Lessees; that we have carefully examined the same, and declare the same to be a complete and correct statement of the business and affairs of said Company in respect to each and every matter and thing therein set forth, to the best of our knowledge, information, and belief; and we further say that no deductions were made before stating the gross earnings or receipts herein set forth, so far as we know, the statements being given by the Lessees, except those shown in the foregoing accounts; and that the accounts and figures contained in the foregoing return embrace all of the financial operations of said Company during the period for which said return is made.

PHILIP HENRY BROWN, *Vice President.*
W. W. DUFFETT, *Treasurer.*

Subscribed and sworn to before me,
this 2d day of September, 1890.

GEORGE E. B. JACKSON,
Justice of the Peace.

ANNUAL REPORT

OF THE

BENNINGTON & RUTLAND RAILWAY COMPANY,

FOR THE YEAR ENDING JUNE 30, 1890.

HISTORY.

Name of common carrier making this report: The Bennington and Rutland Railway Company.

Date of Organization: August, 1877.

Organized under the laws of Vermont.

Name of original corporation: Bennington and Rutland Railroad Company. Organized under the General Statutes of Vermont.

ORGANIZATION.

Names of Directors.	Post-office Address.	Date of Expiration of Term.
J. G. McCullough.....	North Bennington, Vt.	First Tuesday in July.
F. B. Jennings.....	New York City, N. Y.	
W. S. Webb.....	Shelburne, Vt.	
T. L. Park.....	North Bennington, Vt.	
M. S. Colburn.....	Manchester, Vt.	

Total number of stockholders at date of last election: Seven, (7).

Date of last meeting of stockholders for election of directors: First Tuesday in July.

Post-office address of general office: North Bennington, Vermont.

Post-office address of operating office: Supt., Bennington, Vt.; and G. F. and P. A., also Master Mechanic, Rutland, Vt. All other General Offices at North Bennington, Vt.

OFFICERS.

President—J. G. McCullough; North Bennington, Vt.

Vice-President—F. B. Jennings, City of New York, N. Y.

Secretary—G. W. Harman, Bennington, Vt.

Treasurer—S. B. Hall, North Bennington, Vt.

Auditor—W. G. Shaw, North Bennington, Vt.

General Passenger Agent—H. W. Spafford, Rutland, Vt.

General Ticket Agent—In charge of Auditor.

General Superintendent—E. D. Bennett, Bennington, Vt.

General Baggage Agent—In charge of G. P. A.

PROPERTY OPERATED.

Name.	TERMINALS.		Miles of Line for Each Road Named.	Miles of Line for Each Class of Roads Named.
	From	To		
Bennington and Rutland Railway	Bennington, Vt	Rutland, Vt.		
	North Ben- ton	N. Y. State Line	37.06 1.85	58.91

CAPITAL STOCK.

Description.	Par Value of Shares.	Total Par Value Authorized.	Total Amount Issued and Outstanding.
Capital Stock: \$20,000.			
Common	\$50 00	\$1,000,000 00	\$1,000,000 00

MARKET PRICE OF SHARES.		DIVIDENDS DECLARED DURING Y'R.	
June 30, 1890.	Average for Year.	Rate.	Amount.
\$50 00	\$50 00	50 cents per share, 1%	\$10,000 00
Manner of Payment for Capital Stock.		Number of Shares.	Total Cash Realized.
Issued for Reorganization: Common		20,000	\$1,000,000 00

FUNDED DEBT.

Class of Bond or Obligation.	TIME.		Amount of Authorized Issue.	Amount Issued.	Amount Outstanding.	Cash Realized on Amount Issued.
	Date of Issue.	When Due.				
First Mortgage.	Nov. 1877.	Nov. 1, 1897.	\$475,000	\$475,000	\$475,000	\$475,000

Interest payable May and November 1. Rate, 7 per cent.

Amount of Interest Accrued During Year, \$33,250.00.

Amount of Interest Paid During Year, \$33,250.00.

RECAPITULATION OF FUNDED DEBT.

Account.	Amount Issued.	Amount Outstanding.	INTEREST.	
			Amount Accrued During Year.	Amount Paid During Year.
Bonds....	\$475,000 00	\$475,000 00	\$33,250 00	\$33,250 00

CURRENT ASSETS AND LIABILITIES.

Cash and Current Assets Available for Payment of Current Liabilities.		Current Liabilities Accrued to and Including June 30, 1890.	
Cash	\$35,964 26	Audited Vouchers and	
Due from Agents.....	12,071 51	Accounts.....	\$ 7,448 69
Net Traffic Balances due from other companies.....	1,227 93	Wages and Salaries...	7,164 95
Due from solvent companies and individuals.....	3,057 47	Net Traffic Balances due to other companies	6,377 12
		Matured Interest Coupons Unpaid (including Coupons due July 1)	5,541 67
		Balance—Cash Assets	25,788 74
Total	\$52,321 17	Total	\$52,321 17

Materials and Supplies on hand \$5,074.07.

RECAPITULATION.

For Mileage Owned by Road Making this Report.

Account.	Total Amount Outstanding.	Apportionm't to Railroads.	Miles.	Amount per Mile of Road
Capital Stock	\$1,000,000 00	\$1,000,000 00		\$16,975 00
Bonds	475,000 00	475,000 00	58.91	\$8,063 00
Total	\$1,475,000 00	\$1,475,000 00		\$25,038 00

PERMANENT IMPROVEMENTS FOR THE YEAR.

Item.	EXPENDITURES DURING THE YEAR.	
	Included in Operating Expenses.	Total Expenditures.
Equipment :		
Baggage, Express, and Postal Cars	\$2,000 00	\$2,000 00
Total Equipment	\$2,000 00	\$2,000 00

COST OF ROAD AND EQUIPMENT.

Item	Total Cost to June 30, 1889.	Net Additions During Year.	Total Cost to June 30, 1890.	Cost per Mile.
Construction :				
Total Construction	\$1,475,000 00		\$1,475,000 00	\$25,038 00
Equipment :				
Locomotives	48,150 00		\$ 48,150 00	
Passenger Cars	24,000 00		24,000 00	
Baggage, Express and Postal Cars	11,650 00	\$2,000 00	13,650 00	
Combination Cars	3,000 00		3,000 00	
Freight Cars	101,550 00		101,550 00	
Total Equipment	\$ 188,350 00	\$2,000 00	\$ 190,350 00	\$ 3,231 20
Grand Total Cost Construction and Equipment	\$1,663,350 00		\$1,665,350 00	\$28,269 20

INCOME ACCOUNT.

Gross Earnings from Operation.....	\$236,144 42	
Less Operating Expenses.....	169,108 12	
Income from Operation.....		\$67,036 30
Total Income.....		\$67,036 30
Deductions from Income :		
Interest on Funded Debt Accrued....	\$33,250 00	
Taxes	4,342 36	
Total Deductions from Income.....		\$37,592 36
Net Income.....		\$29,443 94
Dividends, 1 per cent., Common Stock..	\$10,000 00	
Total.....		\$10,000 00
Surplus from Operations of Year ending June 30, 1890.....		\$19,443 94
Surplus on June 30, 1889.....		11,418 87
Surplus on June 30, 1890.....		\$30,862 81

EARNINGS FROM OPERATION.

Item.	Total Receipts.	Actual Earnings.
Passenger Revenue.....	\$100,864 45	\$100,864 45
Total Passenger Revenue.....		\$100,864 45
Mail		9,219 72
Express		4,800 00
Total Passenger Earnings.....		\$114,884 17
Freight Revenue.....	\$120,415 24	
Total Freight Revenue.....		\$120,415 24
Total Freight Earnings.....		\$120,415 24
Total Passenger and Freight Earnings.....		\$235,299 41
Other Sources.....		845 01
Total Other Earnings.....		\$845 01
Total Gross Earnings from Operation.....		\$236,144 42

OPERATING EXPENSES.

Item.	Total.
Maintenance of Way and Structures :	
Repairs of Roadway	\$27,266 57
Renewals of Ties	13,618 17
Repairs of Bridges and Culverts	8,710 44
Repairs of Fences, Road-crossings, Signs, and Cattle Guards	2,874 94
Repairs of Buildings	3,364 52
Total	\$55,834 64
Maintenance of Equipment :	
Repairs and Renewals of Locomotives	\$ 8,007 05
Repairs and Renewals of Passenger Cars	9,007 97
Repairs and Renewals of Freight Cars	7,530 27
Shop Machinery, Tools, etc.	1,206 77
Total	\$25,752 06
Conducting Transportation :	
Wages of Enginemen, Firemen and Round-housemen	\$11,990 50
Fuel for Locomotives	29,558 95
Water Supply for Locomotives	225 00
Wages of other Trainmen	14,681 57
Wages of Switchmen, Flagmen, and Watchmen	2,854 90
Expense of Telegraph, including Train Dispatchers and Operators	561 65
Wages of Station Agents, Clerks and Laborers	8,378 00
Station Supplies	1,273 27
Switching Charges—Balance	1,800 00
Car Mileage—Balance	3,797 24
Loss and Damage	815 70
Other Expenses	2,211 57
Total	\$78,148 35
General Expenses :	
Salaries of Officers	\$5,070 00
Salaries of Clerks	810 00
Advertising	209 71
Insurance	908 98
Stationery and Printing	597 72
Other General Expenses	1,776 66
Total	\$9,373 07

OPERATING EXPENSES.—Continued.

Item.	Total.
Recapitulation of Expenses:	
Maintenance of Way and Structures.....	\$ 55,834 64
Maintenance of Equipment.....	25,752 06
Conducting Transportation.....	78,148 35
General Expenses.....	9,373 07
Grand Total.....	\$169,108 12
Percentage of Operating Expenses to Earnings.....	71.61

GENERAL BALANCE SHEET.

Cost of Road.....	}	\$1,475,000 00
Cost of Equipment.....		
Cash and Current Assets.....	\$35,964 26	
Other Assets:	16,356 91	
Materials and Supplies.....	5,074 07	
Total.....	\$57,395 24	\$1,475,000 00
Capital Stock.....		\$1,000,000 00
Funded Debt.....		475,000 00
Current Liabilities.....	\$20,990 76	
Accrued Interest on Funded Debt not yet payable.....	5,541 67	
Profit and Loss.....	30,862 81	
Total.....	\$57,395 24	\$1,475,000 00

CASH STATEMENT OF FINANCIAL OPERATIONS FOR THE YEAR.

Resources to Account for.	Item.	Total.
Net Income from Operation.....	\$67,036 30	
Total.....		\$67,036 30
Increase in Current Liabilities.....	\$36 29	
Total.....		\$36 29
Grand Total.....		\$67,072 59

**CASH STATEMENT OF FINANCIAL OPERATIONS FOR THE
YEAR.—Continued.**

Resources Accounted for.	Item.	Total.
Fixed Charges:		
Interest on Funded Debt paid.....	\$33,250 00	
Taxes	4,342 36	
Total.....		\$37,592 36
Other Charges against Net Income:		
Dividends	\$10,000 00	
Total.....		\$10,000 00
Increase in Assets:		
Cash on hand.....	\$15,775 87	
Cash Assets.....	1,583 92	
Other Assets.....	2,120 44	
Total.....		\$19,480 23
Grand Total.....		\$67,072 59

We have no written Contracts and Agreements.

SECURITY FOR FUNDED DEBT.

Class of Bond or Obligation.	WHAT ROAD MORTGAGED.		
	From	To	Miles.
First Mortgage.....	Bennington North Bennington	Rutland..... New York State Line..	58.91

EMPLOYES AND SALARIES.

Class.	Number.	Total Yearly Compensation.	Average Daily Compensation.
General Officers.....	4	\$ 4,820 00	
Road Master and Master Mechanic.....	2	2,880 00	
General Office Clerks.....	3	960 00	
Station Agents.....	15	6,578 00	\$1 41
Other Station Men.....			
Enginemen.....	8	7,464 00	3 00
Firemen.....	9	4,526 50	1 62
Conductors.....	8	6,468 80	2 60
Other Trainmen.....	18	8,212 77	1 45
Machinists.....	6	3,806 64	2 04
Carpenters.....	10	6,717 60	2 16
Other Shopmen.....	18	8,117 10	1 45
Section Foremen.....	12	5,880 00	1 57
Other Trackmen.....	43	14,710 30	1 10
Switchmen, Flagmen, and Watchmen.....	8	2,854 90	1 15
Telegraph Operators and Dispatchers.....	3	1,072 95	1 15
All other Employees and Laborers.....	8	2,830 10	1 14
Total.....	175	\$87,899 66	
Actual Pay Roll.....		\$87,192 97	
Distribution of above :			
General Administration.....	7	\$ 5,780 00	
Maintenance of Way and Structures.....	61	30,012 19	
Maintenance of Equipment.....	30	13,279 87	
Conducting Transportation.....	77	38,827 60	
Total.....	175	\$87,899 66	

PASSENGER, FREIGHT, AND TRAIN MILEAGE.

Item.	Column for Tonnage, Num- ber Passengers, Number Trains, Mileage, Number Cars.	COLUMN FOR REV- ENUE AND RATES.		
		Dollars.	Cts.	Mills.
Passenger Traffic :				
Number of passengers carried earning revenue.....	191,994			
Number of passengers carried one mile.....	3,851,998			
Average distance carried.....	20.06			
Total passenger revenue.....		\$100,864	45	
Average amount received from each passenger.....			52	535
Average receipts per passen- ger per mile.....			02	618
Passenger earnings per mile of road.....		1,712	18	
Passenger earnings per train- mile.....			46	881
Freight Traffic :				
Number of tons carried of freight earning revenue....	207,978			
Number of tons carried one mile.....	8,281,855			
Average distance haul of one ton.....	39.82			
Total freight revenue.....		120,415	24	
Average amount received for each ton of freight.....			57	898
Average receipts per ton per mile.....			01	454
Freight earnings per mile of road.....		2,044	05	
Freight earnings per train- mile.....			89	101
Passenger and Freight :				
Passenger and freight earn- ings.....		221,279	69	
Passenger and freight earn- ings per mile of road.....		3,756	23	
Expense per mile of road....		2,870	62	
Total earnings per mile of road, including Mails, Ex- press, etc.....		3,994	21	

PASSENGER, FREIGHT, AND TRAIN MILEAGE.—Continued.

Item.	Column for Tonnage, Num- ber Passengers, Number Trains, Mileage, Number Cars.	COLUMN FOR REV- ENUE AND RATES.		
		Dollars.	Cts.	Mills.
Train Mileage :				
Miles run by passenger trains	215,151			
Miles run by freight trains..	135,144			
Total Mileage Trains				
Earning Revenue.....	350,295			
Miles run by switching trains	7,965			
Miles run by construction and other trains.....	4,500			
Grand Total Train Mileage...	362,760			

FREIGHT TRAFFIC MOVEMENT.

Commodity.	Freight Originat- ing on this Road. Whole Tons.	Freight Received from Connect- ing Roads and other Carriers. Whole Tons.	TOTAL FREIGHT TONNAGE.	
			Whole Tons.	Per Cent.
Products of Agriculture :				
Grain	1,061	15,929	16,990	8.17
Flour				
Other Mill Products,				
Hay,				
Tobacco,				
Cotton,				
Fruit and Vegetables,				
Products of Animals :				
Live Stock.....	651	2,173	2,824	1.36
Dressed Meats				
Other Packing-house Pro- ducts				
Poultry, Game, and Fish..				
Wool				
Hides and Leather.....				

FREIGHT TRAFFIC MOVEMENT.—Continued.

Commodity.	Freight Originat- ing on this Road. Whole Tons.	Freight Received from Connect- ing Roads and other Carriers. Whole Tons.	TOTAL FREIGHT TONNAGE.	
			Whole Tons.	Per Cent.
Products of Mines :				
Anthracite Coal.....		18,802	18,802	9.04
Store, Sand, and Other like Articles	4,101	612	4,713	2.26
Marble	10,158	8,064	18,222	8.76
Products of Forest :				
Lumber	18,200	19,681	37,881	18.22
Charcoal	5,269	930	6,199	2.98
Manufactures :				
Petroleum and other Oils.....	13,405	13,928	27,333	13.14
Sugar				
Naval Stores				
Iron, Pig and Bloom,....				
Iron and Steel Rails.....				
Other Castings and Machin- ery				
Bar and Sheet Metal				
Cement, Brick, and Lime.....				
Agricultural Implements.....				
Wagons, Carriages, Tools, etc				
Wines, Liquors, and Beers.....				
Household Goods and Fur- niture				
Merchandise	1,759	6,251	8,010	3.85
Ice	1,565	64,965	66,530	31.99
Miscellaneous :				
Other commodities not men- tioned above	142	332	474	.23
Total Tonnage	56,311	151,667	207,978	100.00

DESCRIPTION OF EQUIPMENT.

Item.	Number Added During Year.	Total Number at End of Year.	EQUIPPED WITH TRAIN BRAKE.		CARS FITTED WITH AUTOMATIC COUPLER.	
			No.	Kind.	No.	Kind.
Locomotives		9	9	Westing-house Auto-matic Air.		
Total		9	9			
Cars in Passenger Service:						
First-class Passenger Cars		11	9	Westing-house Auto-matic Air.	9	Miller Platform Automatic Coupler.
Baggage, Express, and Postal Cars	1	9	9		9	
Total	1	20	18		18	
Cars in Freight Service:						
Box Cars		92				
Flat Cars		123				
Total		215				

MILEAGE.

Line in Use.	Main Line Owned.	Branch Line Owned.	Total Mileage Operated.	RAILS.	
				Iron.	Steel.
Miles of single track	57.06	1.85	58.91		58.91
Miles of yard track, sidings, and spurs	5.25		5.25	5.25	
Total Mileage Operated (all tracks)...	62.31	1.85	64.16	5.25	58.91

MILEAGE OF LINE BY STATES AND TERRITORIES.

State or Territory.	Main Line Owned.	Branch Line Owned.	Total Mileage, Excluding Trackage Rights.	Steel Rails.
Vermont	57.06	1.85	58.91	58.91

MILEAGE OWNED BY ROAD MAKING THIS REPORT.

	Main Line Owned.	Branch Line Owned.	Total Mileage, Excluding Trackage Rights.	Steel Rails.
	57.06	1.85	58.91	58.91

RENEWALS OF RAILS AND TIES.

NEW TIES LAID DURING YEAR.

Kind.	Number.	Average Price at Distributing Point.
Hard Wood.....	32,123	42 cents.

CONSUMPTION OF FUEL BY LOCOMOTIVES.

Locomotives.	Tons Bituminous Coal.	Cords Hard Wood.	Total Fuel Consumed Tons.	Miles Run.	Average Pounds Consumed per Mile.
Passenger	5,296	84	5,352	215,151	56
Freight.....	3,323	53	3,358	135,144	55
Switching	196	3	198	7,965	55
Construction ...	116	2	118	4,500	57
Total	8,931	142	9,026	362,760	55.75
Average Cost at distributing point	\$3.31	\$3.84			

One Trespasser Killed.—W. A. Booth was killed near Rutland, while drunk and asleep on the track.

We have no Map or Survey of the Road.

CHARACTERISTICS OF ROAD.

Bridges :

Number Iron.....	2
Number Wooden.....	28 Howe Truss.
Number Combination	3 Pile. Aggregate Length, 172 feet.

Gauge of Track :..... 4 feet, 8 1-2 inches.

GENERAL INFORMATION.

No provision made by this Road for the payment of its Funded Debt.

Station house and terminal facilities at Rutland, Central Vermont Railroad, (Rutland Division.)

The following Fast Freight Lines operate on this Road:

National Despatch Line,	West Shore Line,
Rome, Watertown, and Ogdens-	Commercial Express Line,
burgh Line,	Lackawanna Line,
Nickel Plate Line,	Traders' Despatch Line,
Hoosac Tunnel Line,	West Shore and Boston Line,
Erie Despatch Line.	Lackawanna and Boston Line.
Inter-State Despatch Line.	

STATE OF VERMONT, } ss:
County of Bennington, }

We, the undersigned, E. D. Bennett, Superintendent, and W. G. Shaw, Auditor, of the Bennington and Rutland Railway Company, on our oath do severally say that the foregoing return has been prepared, under our direction, from the original books, papers, and records of said Company; that we have carefully examined the same, and declare the same to be a complete and correct statement of the business and affairs of said Company in respect to each and every matter and thing therein set forth, to the best of our knowledge, information, and belief; and we further say that no deductions were made before stating the gross earnings or receipts herein set forth, except those shown in the foregoing accounts; and that the accounts and figures contained in the foregoing return embrace all of the financial operations of said Company during the period for which said return is made.

E. D. BENNETT, *Superintendent.*
W. G. SHAW, *Auditor.*

Subscribed and sworn to before me, }
this 14th day of August, 1890. }

S. B. HALL,

Notary Public.

ANNUAL REPORT
OF THE
BOSTON AND MAINE RAILROAD,
PASSUMPSIC DIVISION,
FOR THE YEAR ENDING JUNE 30, 1890.
HISTORY.

Name of common carrier making this report : Boston and Maine Railroad Company, (Passumpsic Division.

ORGANIZATION.

Names of Directors of the Boston & Maine Railroad.	Post-office Address.	Date of Expiration of Term.
Frank Jones	Portsmouth, N. H.	December 10, 1890.
George C. Lord	Newton, Mass.	
Amos Paul	So. Newmarket, N.H.	
Wm. S. Stevens	Dover, N. H.	
Jos. S. Ricker	Deering, Maine	
Richard Olney	Boston, Mass.	
Samuel C. Lawrence	Medford, Mass.	
Wm. T. Hart	Boston, Mass.	
Asa P. Potter	Boston, Mass.	
Jas. T. Furber	Lawrence, Mass.	
A. W. Sulloway	Franklin, N. H.	

Date of last meeting of stockholders for election of directors : December 11, 1889.

Post-office address of general office : Boston, Mass.

Post-office address of operating office : Boston, Mass.

OFFICERS.

President—Frank Jones, Boston, Mass.

Vice-President—Jas. T. Furber, Boston, Mass.

Treasurer—Amos Blanchard, Boston, Mass.

Assistant Treasurer—Herbert E. Fisher, Boston, Mass.

Chief Engineer—H. Bissell, Boston, Mass.

General Auditor—Wm. J. Hobbs, Boston, Mass.

General Manager—Jas. T. Furber, Boston, Mass.

General Freight Agent—Wm. F. Berry, Boston, Mass.

General Passenger Agent, } Dana J. Flanders, Boston, Mass.
General Ticket Agent, }

Division Superintendent—H. E. Folsom, Lyndonville, Vt.

General Baggage Agent—W. R. Brackett, Boston, Mass.

PROPERTY OPERATED.

Name.	TERMINALS.		Miles of Line for Each Road Named.	Miles of Line for Each Class of Roads Named.
	From	To		
Conn. & Pass. Rivers Railroad	White River Junction, Vt.	Canada Line	110.30	
Massawippi Valley Railway	Canada Line	Lenoxville, P. Q.	36.75	147.05
Total Mileage Operated				147.05

The Massawippi Valley Railway was leased to the Connecticut and Passumpsic Rivers Railroad.

The Connecticut and Passumpsic Rivers Railroad was leased to the Boston and Lowell Railroad Corporation.

The Boston and Lowell Railroad Corporation and leased lines was leased to the Boston and Maine Railroad as of April 1, 1887.

INCOME ACCOUNT.

Gross Earnings from Operation	\$874,029 82	
Less Operating Expenses	603,854 25	
Income from Operation,		\$270,175 57
Miscellaneous Income—less Expenses....		12,569 77
Total Income,		\$282,745 34
Deductions from Income :		
Taxes	17,919 42	
Total Deductions from Income....		17,919 42
Net Income.....		\$264,825 92

EARNINGS FROM OPERATION.

Item.	Total Receipts.	Reductions Account Re-payments, etc.	Actual Earnings.
Passenger :			
Passenger Revenue	\$327,045 07		
Tickets Redeemed		\$ 92 53	
Total Deductions		92 53	
Total Passenger Revenue			\$326,952 54
Mail			32,785 30
Express			22,450 04
Extra Baggage and Storage			2,683 80
Total Passenger Earnings			\$384,871 68
Freight :			
Freight Revenue	\$493,739 62		
Overcharge to Shippers		\$4,581 48	
Total Deductions		\$4,581 48	
Total Freight Revenue			\$489,158 14
Total Freight Earnings			\$489,158 14
Total Passenger and Freight Earnings			\$874,029 82
Total Gross Earnings from Operation			\$874,029 82

MISCELLANEOUS INCOME.

Item.	Gross Income.	Less Expense.	Net Miscellaneous Income.
Rents, Tentments, Lands, &c.	\$ 8,346 75	\$ 2,240 68	\$ 6,106 07
Interest, &c.	6,463 70		6,463 70
Total	\$14,810 45	\$2,240 68	\$12,569 77

OPERATING EXPENSES.

Item.	Chargeable to Passenger Traffic.	Chargeable to Freight Traffic.	Total.
Maintenance of Way and Structures :			
Repairs of Roadway	\$ 26,090 54	\$ 38,973 15	\$ 65,063 69
Renewals of Rails	4,136 51	6,178 98	10,315 49
Renewals of Ties	7,154 79	10,687 57	17,842 36
Repairs of Bridges and Culverts	28,209 88	42,138 93	70,348 81
Repairs of Fences, Road-crossings, Signs and Cattle-guards	1,617 43	2,416 05	4,033 48
Repairs of Buildings	5,882 40	9,127 53	15,009 93
Other Expenses	90	1 34	2 24
Total	\$ 73,092 45	\$10,523 65	\$182,616 00
Maintenance of Equipment :			
Repairs and Renewals of Locomotives	\$12,530 61	\$18,717 79	\$31,248 40
Repairs and Renewals of Passenger Cars	11,535 43		11,535 43
Repairs and Renewals of Freight Cars		40,179 91	40,179 91
Shop Machinery, Tools, etc.	3,000 96	4,482 74	7,483 70
Other Expenses	3 21	4 81	8 02
Total	\$ 27,070 21	\$ 63,385 25	\$90,455 46
Conducting Transportation :			
Wages of Enginemen, Firemen and Round-housemen	\$20,846 33	\$33,086 85	\$53,933 18
Fuel for Locomotives	40,771 64	66,210 55	106,982 19
Water-supply for Locomotives	359 10	536 42	895 52
All other Supplies for Locomotives	2,126 16	3,175 97	5,302 13
Wages of other Trainmen	19,795 85	29,114 24	48,910 09
All other Train Supplies	4,971 80	4,076 13	9,047 93
Wages of Switchmen, Flagmen and Watchmen	2,576 21	3,848 25	6,424 46
Expense of Telegraph, including Train Dispatchers and Operators	1,758 74	2,627 14	4,385 88
Wages of Station Agents, Clerks and Laborers	11,608 27	18,283 54	29,891 81
Station Supplies	5,115 22	505 54	5,620 76

OPERATING EXPENSES.—Continued.

Item.	Chargeable to Passenger Traffic.	Chargeable to Freight Traffic.	Total.
Conducting Transportation :			
Car Mileage—Balance.....	\$ 2,671 06	\$ 16,681 49	\$ 19,352 55
Loss and Damage.....	406 09	1,385 20	1,791 29
Injuries to Persons.....	473 50	707 31	1,180 81
Other Expenses.....	256 68	1 29	257 97
Total.....	\$113,736 65	\$180,239 92	\$293,976 57
General Expenses :			
Salaries of Officers, } Salaries of Clerks, }	\$ 5,216 74	\$ 6,347 13	\$ 11,563 87
General Office Expenses and Supplies.....	392 17	565 55	957 72
Agencies, including Sal- aries and Rent.....	9,435 72	227 25	9,662 97
Advertising.....			
Commissions.....			
Insurance.....	3,150 93	4,706 75	7,857 68
Expense of Fast Freight Lines.....		1,845 98	1,845 98
Legal Expenses.....	121 61	181 65	303 26
Stationery and Printing..	2,066 66	1,608 37	3,675 03
Other General Expenses.....	448 29	491 42	939 71
Total.....	\$ 20,832 12	\$ 15,974 10	\$ 36,806 22
Recapitulation of Expenses :			
Maintenance of Way and Structures.....	\$ 73,092 45	\$ 109,523 55	\$ 182,616 00
Maintenance of Equipment..	27,070 21	63,385 25	90,455 46
Conducting Transportation..	113,736 65	180,239 92	293,976 57
General Expenses.....	20,832 12	15,974 10	36,806 22
Grand Total.....	\$234,731 43	\$369,122 82	\$603,854 25

Percentage of operating expenses to earnings, 69.09 per cent.

CONTRACTS, AGREEMENTS, ETC.

American Express Company : Performing all through express service, also doing business between local points. Compensation based on weight carried.

Post-office Departments : United States and Canadian Governments. Compensation, based on space and car service furnished; is fixed by the Governments.

Monarch Palace Car Company.

Through traffic arrangements with all railroad and steamship companies.

Western Union Telegraph Company.

EMPLOYES AND SALARIES.

Class.	No.	Total Yearly Compensation	Average Daily Compensation.
General Officers, } General Office Clerks,* }	7	\$ 9,579 96	
Station Agents	42	18,106 56	\$1 37.7
Other Station Men	33	14,309 40	1 38.5
Enginemen, \$3.50, \$2.70, \$2.45, \$2.25 ..	34	28,559 40	2 68.4
Firemen, \$1.90, \$1.75, \$1.50	33	16,386 72	1 58.6
Conductors, Passenger, \$2.50, \$2.25, Freight, \$55. } per month	27	18,391 56	2 17.6
Other Trainmen	59	28,958 76	1 56.8
Machinists and Foremen, \$2.35, \$2.25, \$2.10, \$2.00, \$1.95, \$1.85, \$1.75	24	14,535 00	1 93.5
Carpenters, \$2.05, \$2.00, \$1.90, \$1.80, \$1.65, \$1.60, \$1.50, \$1.40	63	34,590 36	1 75.4
Other Shopmen	41	19,844 52	1 54.6
Section Foremen and Road-masters ..	46	33,829 60	1 65.5
Other Trackmen	144	53,237 04	1 18.1
Switchmen, Flagmen and Watchmen ..	32	12,504 84	1 24.8
Telegraph Operators and Dispatchers ..	6	2,752 92	1 46.6
All Other Employees and Laborers	127	48,138 48	1 21.1
Total	718	\$343,725 12	\$1 52.9
Distribution of Above :			
General Administration	7	\$ 9,579 96	
Maintenance of Way and Structures	296	122,303 04	
Maintenance of Equipment	146	70,656 96	
Conducting Transportation	269	141,185 16	
Total	718	\$343,725 12	\$1 52.9

*Does not include general officers and clerks at Boston.

PASSENGER, FREIGHT AND TRAIN MILEAGE.

Item.	Column for Ton- nage, Number Passengers, Number Trains, Mileage, Number Cars.	COLUMN FOR REVE- NUE AND RATES.		
		Dollars.	Cts.	Mills.
Passenger Traffic :				
Number of passengers carried earning revenue.....	333,058			
Number of passengers carried one mile.....	12,842,936			
Average distance carried—miles.....	38.561			
Total passenger revenue.....		\$326,952	54	
Average amount received from each passenger.....			98	167
Average receipts per passenger per mile.....			02	546
Estimated cost of carrying each passenger one mile.....			01	828
Passenger earnings per mile of road.....		2,617	28	
Passenger earnings per train-mile.....		1	07	981
Freight Traffic :				
Number of tons carried of freight earning revenue....	659,725			
Number of tons carried one mile.....	46,979,132			
Average distance haul of one ton.....	71,210			
Total freight revenue.....		489,158	14	
Average amount received for each ton of freight.....			74	146
Average receipts per ton per mile.....			01	041
Estimated cost of carrying one ton one mile.....			00	785
Freight earnings per mile of road.....		3,326	47	
Freight earnings per train-mile.....			91	791
Passenger and Freight :				
Passenger and freight earnings.....		874,029	82	
Passenger and freight earnings per mile of road,.....		5,943	75	

PASSENGER, FREIGHT AND TRAIN MILEAGE.—Continued.

Item.	Column for Ton- nage, Number Passengers, Number Trains, Mileage, Number Cars.	COLUMN FOR REVE- NUE AND RATES.		
		Dollars.	Cts.	Mills.
Passenger and Freight :				
Expense per mile of road.....		4,106	46	
Total earnings per mile of road, including Mails, Ex- press, etc.....		5,943	75	
Number of passenger trains.....	13			
Number of freight trains.....	13			
Number of mixed trains.....	9			
Train mileage :				
Miles run by passenger trains.....	356,425			
Miles run by freight trains.....	592,907			
Total Mileage Trains Earning Revenue.....	889,332			
Miles run by switching trains.....	34,658			
Miles run by construction and other trains.....	17,355			
Grand Total Train Mileage..	941,345			

DESCRIPTION OF EQUIPMENT.

Item.	Total Num- ber at End of Year Owned by C. & P. R. R.	EQUIPPED WITH TRAIN BRAKE.		CARS FITTED WITH AUTO- MATIC COUPLER	
		No.	Kind.	No.	Kind.
Locomotives :					
Passenger.....	18	18	Westing- house		
Freight.....	10		Automatic.		
Switching.....	1				
Total.....	29	18			

DESCRIPTION OF EQUIPMENT.—Continued.

Item.	Total Number at End of Year Owned by C. & P. R. R.	EQUIPPED WITH TRAIN BRAKE.		CARS FITTED WITH AUTO-MATIC COUPLER	
		No.	Kind.	No.	Kind.
Cars in Passenger Service:					
First-class Passenger Cars	13	13	Westing-house Automatic.	13	Miller.
Combination Passenger Cars	8	8	do.	8	do.
Parlor Cars	2	2	do.	2	do.
Baggage, Express and Postal Cars	5	5	do.	5	do.
Total	28	28		28	
Cars in Freight Service					
Box Cars	517				
Flat Cars	512				
Stock Cars	10				
Refrigerator Cars	5				
Total	1,044				
Cars in Company's Service:					
Derrick Cars	3				
Caboose Cars	11				
Other Road Cars	1				
Total	15				
Total Owned	1,087				
Grand Total	1,087	28		28	

MILEAGE.

Item.	Line Operated under Lease.	Total Mileage Operated.	RAILS.
			Steel.
Miles of Single Track	147.05	147.05	147.05
Miles of Yard Track, Siding and Spurs	31.84	31.84	3.87
Total Mileage Operated (all tracks)	178.89	178.89	150.92

MILEAGE OF LINE BY STATES AND TERRITORIES.

State or Territory.	Line Operat- ed under Lease.	Total Mile- age, Exclud- ing Track- age Rights.	RAILS.
			Steel.
Vermont	110.30	110.30	110.30
Canada	36.75	36.75	36.75
Total Mileage Operated (all tracks)	147.05	147.05	147.05

RENEWALS OF RAILS AND TIES.

NEW RAILS LAID DURING YEAR.

NEW TIES LAID DURING YEAR

Kind.	Tons.	Weight per Yard.	Average Price per Ton at Dis- tribut- ing Point.	Kind.	Num- ber.	Average Price at Distribut- ing point.
Iron: Old	80	56	\$19 00	Cedar	24,417	28 c.
Total Iron	80	56	\$19 00	Tamarack	10,831	25 c.
Steel, } New ...	719	60	30.00	Hemlock	39,935	23 c.
} Old	233	56	25.00			
Total Steel	952			Total	75,183	

CONSUMPTION OF FUEL BY LOCOMOTIVES.

Locomotives.	COAL—TONS.	WOOD—CORDS.	Total Fuel Consumed Tons.	Miles Run.	Average Pounds Consumed per Mile.
	Bituminous.	Hard and Soft.			
Passenger, Freight, Switching, Construction,	18,079,964	6,296 4-8	21,227.1513	941,345	50.06
Total	18,079,964	6,296 4-8	21,227.1513	941,345	50.06
Average Cost at distributing point...	\$4.53	\$2.97			

ACCIDENTS TO PERSONS.

Number of trainmen injured, coupling and uncoupling and other train accidents, two.

Number of trespassers killed, at stations, five.

CHARACTERISTICS OF ROAD.

<i>Bridges:</i>	
Number Iron	1
Number Wooden	46
<i>Trestles:</i>	
Number	24
Aggregate length	3,003 feet.
<i>Gauge of Track:</i>	4 feet 8½ inches.

GENERAL INFORMATION.

The following Fast Freight Lines, of which this Road is a member, operate over the line of this Road:

Great Eastern Fast Freight Line, Canadian Pacific Despatch, Ogdensburg Transit Company, R. W. & O. Line, Red Line Transit Company, White Line Central Transit Company, Great Central Route, Blue Line, Midland Line, Canada Southern Line, Nickel Plate Line.

August 25th, 1890.—

For Page 39, I enclose an answer which please attach to our report.

W. J. HOBBS, *Gen'l Auditor.*

A true copy.—Attest,

ALFRED E. WATSON,

Clerk. Board of Railroad Commissioners.

STATE OF MASSACHUSETTS, }
County of Suffolk, } ss :

We, the undersigned, James T. Furber, Vice-President, and Wm. J. Hobbs, General Auditor, of the Boston & Maine Railroad, on our oath do severally say that the foregoing return has been prepared, under our direction, from the original books, papers, and records of said Company ; that we have carefully examined the same, and declare the same to be a complete and correct statement of the business and affairs of said Company in respect to each and every matter and thing therein set forth, to the best of our knowledge, information, and belief : and we further say that no deductions were made before stating the gross earnings or receipts herein set forth, except those shown in the foregoing accounts ; and that the accounts and figures contained in the foregoing return embrace all of the financial operations of said Company during the period for which said return is made.

JAS. T. FURBER, *Vice-President and Gen'l Manager.*

WM. J. HOBBS, *Gen'l Auditor.*

Subscribed and sworn to before me,
this 19th day of August, 1890.

SIGOURNEY BUTLER,
Justice of the Peace.

ANNUAL REPORT OF THE CENTRAL VERMONT RAILROAD COMPANY

FOR THE YEAR ENDING JUNE 30, 1890.

HISTORY.

Name of common carrier making this report: Central Vermont Railroad Company.

Date of organization: 27th May, 1873.

Organized under the laws of the State of Vermont, Act No. 204, approved November 23, 1873.

Name of original corporation: The Vermont Central Railroad Company, chartered October 31, 1843, Act No. —

ORGANIZATION.

Names of Directors.	Post-Office Address.	Date of Expiration of Term.
J. Gregory Smith.....	St. Albans, Vt.....	September 11, 1890.
J. R. Langdon.....	Montpelier, Vt.....	
E. C. Smith.....	St. Albans, Vt.....	
Benj. P. Cheney.....	Boston, Mass.....	
Joseph Hickson.....	Montreal, P. Q.....	
W. H. H. Bingham.....	Montpelier, Vt.....	
Robert Wright.....	Montreal, P. Q.....	

Date of last meeting of stockholders for election of directors: October 30, 1889.

Post-office address of general office: St. Albans, Vt.

Post-office address of operating office: St. Albans, Vt.

OFFICERS.

President—J. Gregory Smith, St. Albans, Vt.

Vice-President—J. R. Langdon, Montpelier, Vt.

Vice-President—E. C. Smith, St. Albans, Vt.

Clerk—Geo. T. Childs, St. Albans, Vt.

Treasurer—D. D. Ranlett, St. Albans, Vt.

Cashier—W. H. Chaffee, St. Albans, Vt.

Chief Engineer—William Babbitt, St. Albans, Vt.

General Solicitor, Att'y or Counsel—B. F. Fifield, Montpelier, Vt.

General Auditor—E. G. Lucas, St. Albans, Vt.

Freight Auditor—H. E. Bentley, St. Albans, Vt.

General Manager—J. W. Hobart, St. Albans, Vt.

Traffic Manager (through traffic)—John Porteous, Boston, Mass.

Supt. Local Freight Traffic—E. A. Chittenden, St. Albans, Vt.

General Passenger Agent—S. W. Cummings, St. Albans, Vt.

General Superintendent—J. M. Foss, St. Albans, Vt.

Division Superintendent—J. Burdett, Rutland, Vt.

Division Superintendent—C. F. Spaulding, New London, Conn.

Division Superintendent—F. W. Baldwin, Ogdensburg, N. Y.

Division Superintendent—I. B. Futvoye, St. Johns, P. Q.

Division Superintendent—T. M. Deal, St. Albans, Vt.

Superintendent of Telegraph—M. Magiff, St. Albans, Vt.

Superintendent of Motive Power—W. J. Robertson, St. Albans, Vt.

General Baggage Agent—H. Brainerd, St. Albans, Vt.

PROPERTY OPERATED.

Name.	TERMINALS.		Miles of Line for Each Road Named.	Miles of Line for Each Class of Roads Named.
	From	To		
Consolidated Railroad of Vermont	Windsor	Province Line. Rouses Point	11 158.4	169.4
Consolidated Railroad of Vermont	Burlington	Essex Junction	8	22.9
Consolidated Railroad of Vermont	Montpelier Jet	Montpelier	1.4	
Montpelier and White River	Montpelier	Williamstown	18.5	
Rutland	Bellows Falls	Burlington	119.7	246.3
Addison County	Leicester Junction	Ticonderoga	15.6	
Vermont and Massachusetts	Millers Falls	Brattleboro	21	
Brattleboro and Whitehall	Brattleboro	South Londonderry	36	
Missisquoi Valley	St. Albans	Richford	28	
Burlington and Lamoille Valley	Essex Junction	Cambridge Junction	26	
Total				438.6

CAPITAL STOCK.

Description.	Par Value of Shares.	Total Par Value Authorized.	Total Amount Issued and Outstanding.
Capital Stock : Common	\$100 00	\$1,000,000 00	\$1,000,000 00
Total		\$1,000,000 00	\$1,000,000 00
Manner of Payment for Capital Stock.		Number of Shares.	Total Cash Realized.
Issued for Cash : Common		10,000	\$1,000,000 00
Total			\$1,000,000 00

CURRENT ASSETS AND LIABILITIES.

Cash and Current Assets Available for Payment of Current Liabilities.		Current Liabilities Accrued to and Including June 30, 1890.	
Cash	\$ 181,089 26	Loans and Bills Payable ..	\$901,684 43
Bills Receivable....	15,556 59	Audited Vouchers and Accounts....	350,995 50
Due from Agents..	33,913 35	Wages and Salaries....	101,281 03
Due from solvent companies and individuals	136,502 90	Net Traffic Balances due to other companies	65,795 51
Other Cash Assets* ..	277,581 87	Dividends not called for	43,400 00
Balance—Current Liabilities	1,138,608 77	Matur'd Interest Coupons unpaid (including Coupons due July 1)	271,302 00
		Rentals due July 1..	68,794 27
Total	\$1,803,252 74	Total	\$1,803,252 73

*Materials and Supplies on hand, \$221,144.81

RECAPITULATION.

Account.	Total Am't Outstand'g.	Apportionm't to Railroads.	Miles.	Amount per Mile of Road.
Capital Stock ..	\$1,000,000 00	\$1,000,000 00	178.8	\$5,586 59
Total	\$1,000,000 00	\$1,000,000 00	178.8	\$5,586 59

INCOME ACCOUNT.

Gross Earnings from Operation.....	\$3,090,473 19	
Less Operating Expenses.....	2,285,864 53	
Income from Operation.....		\$804,608 66
Interest on Bonds owned.....	10,775 00	
Income from Other Sources.....		10,775 00
Total Income.....		\$815,383 66
Deductions from Income :		
Interest on Funded Debt Accrued.....	\$350,000 00	
Interest on Interest-bearing Current Liabilities accrued, not otherwise provided for.....	58,795 78	
Rentals, including Tracks, Yards and Terminals.....	352,766 66	
Taxes.....	41,869 85	
Total Deduction from Income.....		\$803,432 29
Net Income.....		\$11,951 37
Surplus from Operations of Year ending June 30, 1890.....		\$11,951 37
Surplus on June 30, 1889.....		54,066 38
Surplus on June 30, 1890.....		\$66,017 75

EARNINGS FROM OPERATION.

Item.	Total Receipts.	Deductions Account of Repaym'ts, Etc.	Actual Earnings.
Passenger :			
Passenger Revenue.....	\$902,635 96		
Tickets redeemed.....		\$1,254 74	
Excess Fares refunded.....		1,941 78	
Total Deductions.....		\$3,196 52	
Total Passenger Revenue.....			\$899,439 44
Mail.....	68,869 12		
Express.....	40,870 86		
Extra Baggage and Storage.....	10,483 21		
Other Items.....			120,223 19
Total Passenger Earnings.....			\$1,019,662 63

EARNINGS FROM OPERATION.—Continued.

Item.	Total Receipts.	Deductions Account of Repaym'ts, Etc.	Actual Earnings.
Freight :			
Freight Revenue.....	\$2,135,317 77		
Overcharge to Shippers.....		\$55,235 28	
Other Repayments.....		9,271 93	
Total Deductions.....		\$64,507 21	
Total Freight Earnings and Revenue.....			\$2,070,810 56
Total Gross Earnings from Operation.....			\$3,099,473 19

BONDS OWNED.

Name.	Total Am't Held.	Rate.	Income or Interest Received.
Stanstead, Shefford and Chambly Consolidated Railroad of Vermont (Bonds on hand, \$161,600.00)...	\$475,336 67		
Ogdensburg Transit Co.....	161,600 00		
St. Lawrence and Saratoga (7 months interest).....	150,000 00	6%	\$9,000 00
Canada Atlantic.....	30,000 00	5%	875 00
	18,000 00	5%	900 00
Total.....	\$834,936 67		\$10,775 00

STOCKS OWNED.

Name.	Total Par Value.
Montpelier and White River.....	\$ 68,900 00
Grand Isle Steamboat Company.....	10,000 00
Ogdensburg Transit Company.....	167,984 20
Ogdensburg and Lake Champlain Co.....	425,000 00
Preferred Stock (C. V. R. R. Co.).....	2,160 00
Total.....	\$674,044 20

OPERATING EXPENSES.

Item.	Chargeable to Passenger Traffic 33%	Chargeable to Freight Traffic 67%	Total.
Maintenance of Way and Structures :			
Repairs of Roadway	\$86,765 54	\$176,160 35	\$262,925 89
Repairs of Bridges and Culverts	18,553 33	37,668 90	56,222 23
Repairs of Fences, Road-crossings, Signs and Cattle Guards	3,119 92	6,334 37	9,454 29
Repairs of Buildings	10,341 79	20,996 96	31,338 75
Repairs of Docks & Wharves	97 29	197 53	294 82
Total	\$118,877 87	\$241,358 11	\$360,235 98
Maintenance of Equipment :			
Repairs and renewals of Locomotives	\$45,105 46	\$ 91,577 75	\$136,683 21
Repairs and renewals of Passenger Cars	60,929 06	-----	60,929 06
Repairs and renewals of Freight Cars	-----	129,944 58	129,944 58
Shop Machinery, Tools, etc.	4,639 17	9,418 91	14,058 08
Total	\$110,673 69	\$230,941 24	\$341,614 93
Conducting Transportation :			
Wages of Enginemen, Firemen and Round-housemen ..	\$ 56,834 02	\$115,390 28	\$172,224 30
Fuel for Locomotives	149,285 28	303,094 35	452,379 63
Water-supply for Locomotives	2,981 20	6,052 87	9,034 13
All other supplies for Locomotives	6,253 62	12,696 72	18,950 34
Wages of other Trainmen	67,103 53	136,240 50	203,344 03
All other Train Supplies	5,787 59	11,750 57	17,538 16
Wages of Switchmen, Flagmen and Watchmen	9,395 80	19,076 50	28,472 39
Expense of Telegraph, including Train Dispatchers and Operators	7,830 04	15,897 35	23,727 39
Wages of Station Agents, Clerks and Laborers	35,706 29	72,494 59	108,200 88
Station Supplies	11,127 96	22,593 14	33,721 10
Car Mileage—Balance	-----	197,353 57	197,353 57
Loss and Damage	4,211 47	8,550 56	12,762 03
Injuries to Persons	18,577 15	37,717 25	56,294 40
Total	\$375,094 10	\$958,908 25	\$1,334,002 35

OPERATING EXPENSES.—Continued.

Item.	Chargeable to Passenger Traffic.	Chargeable to Freight Traffic.	Total.
General Expenses :			
Salaries of Officers	\$38,166 87	\$77,490 31	\$115,657 18
General Office Expenses and Supplies	437 51	888 28	1,325 79
Agencies, including Salaries and Rent	18,149 52	36,849 02	54,998 54
Advertising, Stationery, etc.	10,940 53	22,212 60	33,153 13
Insurance	527 05	1,070 07	1,597 12
Expense of Traffic Associations		7,082 81	7,082 81
Legal Expenses	11,014 72	22,363 23	33,377 95
Other General Expenses, C. E.	930 19	1,888 56	2,818 75
Total	\$80,166 39	\$169,844 88	\$250,011 27
Recapitulation of Expenses :			
Maintenance of Way and Structures	\$118,877 87	\$241,358 11	\$360,235 98
Maintenance of Equipment	110,673 09	230,941 24	341,614 33
Conducting Transportation	375,094 10	958,908 25	1,334,002 35
General Expenses	80,166 39	169,844 88	250,011 27
Grand Total	\$684,812 05	\$1,601,052 48	\$2,285,864 53

Percentage of Operating Expenses to Earnings, 75 per cent.

RENTALS PAID.

Name of Road.	Interest on Bonds Guaranteed.	Cash.	Total.
Rutland and Addison Co.		\$258,000 00	\$258,000 00
Vermont and Mass.		39,000 00	39,000 00
Brattleboro and Whitehall		12,000 00	12,000 00
Missisquoi Valley		20,200 00	20,200 00
Burlington and Lamoille Valley	From May 1st, 1889.	23,566 66	23,566 66
Grand Total Rentals Paid			\$352,766 66

GENERAL BALANCE SHEET.

Stocks of other companies owned.....		\$834,936 67
Other permanent investments.....		674,044 20
Cash and Current Assets.....		644,643 97
Other Assets :		
Materials and Supplies.....	\$221,144 81	
Sundry Ledger Account, not classed as Assets.....	524,500 84	
		745,645 65
Total.....		\$2,899,270 49
Capital Stock.....		\$1,000,000 00
Current Liabilities.....		1,833,252 74
Profit and Loss, June 30, 1889.....	\$54,066 38	
" " " June 30, 1890.....	11,951 37	
		66,017 75
Total.....		\$2,899,270 49

CONTRACTS, AGREEMENTS, ETC.

Express Companies :

United States and Canada Company.....	\$46,000 00
National Company.....	6,500 00

The compensation received from the United States and Canada Company covers the service over our roads in Canada and over the Ogdensburg and Lake Champlain and New London Northern.

Mails :

The United States Government pays as compensation over the roads embraced in this report, \$66,139.96.

Wagner Cars :

The Central Vermont Railroad Company pay 2c per mile service. The receipts of the cars are taken by the Wagner Co.

Freight and Transportation Co.'s Cars :

The Central Vermont Railroad Company pays at the rate of $\frac{1}{4}$ of 1c per mile, with the exceptional rates to three or four roads of $1\frac{1}{2}$ of 2c per mile.

EMPLOYES AND SALARIES.

Class.	Number.	Total Yearly Compensation.	Average Daily Compensation.
General Officers.....	18	\$ 61,980 00	
General Office Clerks.....	155	99,632 77	\$2 06
Station Agents.....	102	50,521 44	1 58
Other Station Men.....	217	71,458 55	1 06
Enginemen.....	140	111,794 39	2 56
Firemen.....	147	66,729 99	1 45
Conductors.....	112	74,082 82	2 12
Other Trainmen.....	410	172,662 99	1 35
Machinists.....	156	87,607 56	1 79
Carpenters.....	312	129,426 38	1 33
Other Shopmen.....	150	65,654 04	1 40
Section Foremen.....	98	48,525 86	1 58
Other Trackmen.....	396	106,804 95	86
Switchmen.....	19	7,523 75	1 27
Telegraph Operators and Dispatchers.....	46	20,107 74	1 40
All other Employes and Laborers.....	220	90,015 08	1 31
Total.....	2,698	\$1,264,528 31	
Distribution of Above :			
General Administration.....	173	\$161,612 77	
Maintenance of Way and Structures.....	806	284,757 19	
Maintenance of Equipment.....	306	153,261 60	
Conducting Transportation.....	1,413	664,896 75	
Total.....	2,698	\$1,264,528 31	

PASSENGER, FREIGHT, AND TRAIN MILEAGE.

Item.	Column for Tonnage, Num- ber Passengers, Number Trains, Mileage, Number Cars.	COLUMN FOR REV- ENUE AND RATES.		
		Dollars.	Cts.	Mills.
Passenger Traffic :				
Number of passengers carried earning revenue	1,263,253			
Number of passengers carried one mile	35,573,228			
Average distance carried	7.10			
Total passenger revenue		\$ 899,439	44	
Average amount received from each passenger			71	2
Average receipts per passen- ger per mile			02	5
Estimated cost of carrying each passenger one mile			01	9
Passenger earnings per mile of road		2,322	68	
Passenger earnings per train mile			1	02
Freight Traffic :				
Number of tons carried of freight earning revenue...	2,806,243			
Number of tons carried one mile	275,179,075			
Average distance haul of one ton	7.10			
Total freight revenue		\$2,070,810	56	
Average amount received for each ton of freight			73	
Average receipts per ton per mile			00	75
Estimated cost of carrying one ton one mile			00	57
Freight earnings per mile of road		4,717	11	
Freight earnings per train mile			1	03
Passenger and Freight :				
Passenger and freight earn- ings (revenue)		2,970,250	00	
Passenger and freight earn- ings per mile of road (rev- enue)		6,765	94	
Expense per mile of road		5,206	98	

PASSENGER, FREIGHT, AND TRAIN MILEAGE.—Continued.

Item.	Column for Ton- nage, Number Passengers, Number Trains, Mileage, Number Cars.	COLUMN FOR REV- ENUE AND RATES.		
		Dollars.	Cts.	Mills.
Total earnings per mile of road, including Mails, Ex- press, etc.....		\$7,039	79	
Number of Passenger trains.....	31			
Number of Freight trains (extra trains not included).....	25			
Number of Mixed trains.....	23			
Train Mileage :				
Miles run by Passenger trains.....	1,001,580			
Miles run by Freight trains.....	2,004,030			
Total Mileage trains earn- ing Revenue.....	3,005,610			
Miles run by Switching trains.....	609,818			
Miles run by Construction and other trains.....	153,963			
Grand Total Train Mileage.....	3,769,391			
Average number of freight cars in train.....	35			
Average number of loaded cars in train.....	23			
Average number of empty cars in train.....	12			
Average number of tons of freight in train.....	345			
Average number of tons of freight in each loaded car.....	15			

DESCRIPTION OF EQUIPMENT.

Item.	Number Added During Year.	Total Number at End of Year.	EQUIPPED WITH TRAIN BRAKE.		CARS FITTED WITH AUTOMATIC COUPLER.	
			No.	Kind.	No.	Kind.
Locomotives :						
Passenger		47	47	West'house		
Freight	6	70	1	West'house		
Switching		13	2	West'house		
Total	6	130				
Cars in Passenger Service :						
Sec'd-class Passenger Cars		71				
Baggage, Express and Postal Cars		34				
Other Cars in Passenger Service		2				
Total		107	107	West'house	107	Miller.
Cars in Freight Service :						
Box Cars		1,164				
Flat Cars		510				
Stock Cars		86				
Coal Cars	25	189				
Refrig'rator Cars		21				
Other Cars		63				
Total		2,033			939	Safford.
Cars in Company's Service :					20	U. States.
Gravel Cars		19				
Derrick Cars		10				
Caboose Cars		77				
Other road Cars		17				
Total		123				
Cars contributed to Fast Freight Line		35				
Cars Leased		1,350	850	West'house		
Grand Total		3,541				

MILEAGE.

Line in Use.	Line Operated Under Lease.	Total Mileage Operated.	RAILS.	
			Iron.	Steel.
Miles of Single Track.....	438.6	438.6	91.5	347.1

MILEAGE OF LINE BY STATES AND TERRITORIES.

State or Territory.	Line Operated Under Lease.	RAILS.	
		Iron.	Steel,
Vermont.....	427.6	91.5	336.1
Massachusetts.....	11		11
Total Mileage Operated (all tracks)	438.6	91.5	347.1

RENEWALS OF RAILS AND TIES.

NEW RAILS LAID DURING YEAR.				NEW RAILS LAID DURING YEAR.		
Kind.	Tons.	Weight per Yard.	Average Price per Ton at Dis- tribut- ing Point.	Kind.	Number.	Average Price at Dis- tribut- ing Point.
Steel	713.5	72 lbs.	\$30 00	Tamarack & Cedar	122,750	32½c.
Total Steel	713.5	72 lbs.	\$30 00	Total.....	122,750	32½c.

CONSUMPTION OF FUEL BY LOCOMOTIVES.

Locomotives.	COAL—TONS.	WOOD— CORDS.	Total Fuel Consumed. Tons.	Miles Run.	Total Pounds.
	Bituminous.	Hard.			
Passenger	24,266	9,959	30,905	1,001,580	61,810,000
Freight	49,465	20,300	62,998	2,004,030	125,996,000
Switching	14,933	6,128	19,019	609,818	38,038,000
Construction...	4,667	1,915	5,944	153,963	11,888,000
Total	93,331	38,302	118,866	3,769,391	237,732,000

Pounds per mile, 63.

ACCIDENTS TO PERSONS.

Kind of Accident.	TRAINMEN.		Switchmen, Flagmen and Watchmen, Injured.	OTHER EMPLOYEES.		TOTAL.	
	Killed.	Injured		Killed.	Injured	Killed.	Injured
Coupl'g, Uncoupl'g Falling from Trains and Engines	5	7	1	2	7	7	12
Overh'd Obstruct'ns Collisions	3	1		1	2	2	2
Other Train Accid'ts		2		2	3	3	9
Other Causes		3		4	2	4	2
Total	8	31	1	6	5	14	37

	PASSENGERS.		OTHERS.			TOTAL.	
	Killed.	Injured	Killed.	Injured	Not Tres- passing, Injured.	Killed.	Injured
Collisions	1	2					
Other Train Accid'ts	1	2		1		1	2
At Highway Cross- ings			2	2		2	2
At Stations					3		3
Other Causes			5	5	1	5	6
Cloud Burst*		10					10
Total	2	14	7	8	4	9	26

*Undermined embankment, which gave way with train.

CHARACTERISTICS OF ROAD.

WORKING DIVISIONS OR BRANCHES.			ALIGNMENT.			PROFILE.					
From	To	Miles.	Number of Curves.	Aggregate Length of Curved Line.	Length of Straight Line.	ASCENDING GRADES.			DESCENDING GRADES.		
						Number.	Sum of Ascents.	Aggregate Length of Ascending Grades.	Number.	Sum of Descents.	Aggregate Length of Descending Grades.
Windsor	St. Albans	134.5	152	51.55	82.95	49	1,291	45.1	46	1,208	50.9
St. Albans	Rouses Point	23.9	17	7.5	16.4	5	.55	1.8	12	328	13.3
Montpelier Jct.	Montpelier	1.47	5	.87	.6	12	426	8.09	8	45	1.41
Montpelier	Williamstown	13.5	50	5.9	7.6	2	9	.85	9	252	6.3
Essex Jct.	Burlington	8	8	2.5	5.5	5	65	2.88	11	125	5.32
Swanton Jct.	Province Line	11	9	1.9	9.1	10	1,340	37.4	19	1,370	49.
Bellows Falls.	Burlington	119.7	40	42.96	76.74	8	84	3.59	11	335	10.54
Leicester Jct.	Ticonderoga.	15.6	40	6.03	9.57	41	1,182	19.	68	414	6.4
Brattleboro	So. Londonderry	36	123	30	6	91	205	9.4	24	476	9.5
Miller's Falls.	Brattleboro	21	80	11	17						
St. Albans	Richford	28									
Essex Jct.	Cambridge Jct.	26									
						438.67					

WORKING DIVISIONS OR BRANCHES.

CHARACTERISTICS OF ROAD.—Continued.

Bridges :

Number Stone.....	16
Number Iron.....	13
Number Wooden.....	308
Number Combination.....	1
Total.....	338

Tunnels :

Number, 1 ; maximum length, 432 feet ; minimum length, 340 feet ; aggregate length of all tunnels, 432 feet.

Gauge of Track—4 feet 8½ inches on all roads, except the Brattleboro and Whitehall, which is 3 feet.

Telegraph :

Owned by Western Union Company, Rouse's Point, Windsor and Burlington, 167 miles of wire.

Operated by this Company, over all other portions of road, 393 miles of line.

Operated by this Company, over all other portions of road, 444 miles of wire.

STATE OF VERMONT, {
County of Franklin. } ss.

I, Edmund George Lucas, General Auditor of the Central Vermont Railroad Company, on my oath do say that the foregoing return has been prepared, under my direction, from the original books, papers, and records of said Company; that I have carefully examined the same, and declare the same to be a complete and correct statement of the business and affairs of said Company in respect to each and every matter and thing therein set forth, to the best of my knowledge, information, and belief; and I further say that no deductions were made before stating the gross earnings or receipts herein set forth, except those shown in the foregoing accounts; and that the accounts and figures contained in the foregoing return embrace all of the financial operations of said Company during the period for which said return is made.

EDMUND G. LUCAS, *General Auditor.*

Subscribed and sworn to before me,
this 8th day of September, 1890.

GEO. T. CHILDS,

Notary Public.

ANNUAL REPORT
OF THE
CLARENDON AND PITTSFORD RAILROAD
COMPANY,

FOR THE YEAR ENDING JUNE 30, 1890.

HISTORY.

Name of common carrier making this report: Clarendon and Pittsford Railroad Company.

Date of organization: Sept. 10th, 1885.

Organized under the general laws of the State of Vermont.

ORGANIZATION.

Names of Directors.	Post-office Address.	Date of Expiration of Term.
Fletcher D. Proctor...	Proctor, Vt.....	Second Monday in September, 1890.
Frank C. Partridge...	Proctor, Vt.....	
Geo. Briggs.....	Brandon, Vt.....	
E. R. Morse	Proctor, Vt.....	
C. J. Smith.....	Boston, Mass.....	

Total number of stockholders at date of last election: Twenty.

Date of last meeting of stockholders for election of directors: September 17, 1889.

Post-office address of general office: Proctor, Vt.

Post-office address of operating office: Proctor, Vt.

OFFICERS.

President—F. D. Proctor, Proctor, Vt.

Vice-President—E. R. Morse, Proctor, Vt.

Secretary and Treasurer—F. C. Partridge, Proctor, Vt.

Superintendent—George C. Robinson, West Rutland, Vt.

PROPERTY OPERATED.

Name.	TERMINALS.		Miles of Line for Each Class of Roads Named.
	From	To	
Clarendon & Pittsford.....	Proctor, Vt.	W. Rutland, Vt.	10
Total.....			10

CAPITAL STOCK.

Description.	Par Value of Shares.	Total Par Value Authorized.	Total Amount Issued and Outstanding.
Capital Stock : Common....	\$100	\$120,000	\$60,000
Total.....		\$120,000	\$60,000

Manner of Payment for Capital Stock.	Number of Shares.	Total Cash Realized.
Issued for Cash : Common.....	600	\$6,000

Ten per cent paid in.

CURRENT ASSETS AND LIABILITIES.

Cash and Current Assets Available for Payment of Current Liabilities.

Cash.....	\$ 18 57
Balance—Current Liabilities.....	127,488 48
Total.....	\$127,507 05

Current Liabilities Accrued to and Including June 30, 1890.

Loans and Bills Payable.....	\$126,337 98
Miscellaneous.....	1,169 07
Total.....	\$127,507 05

RECAPITULATION.

Account.	Total Amount Outstanding.	Apportionment to Railroads.	AMOUNT PER MILE OF ROAD.	
			Miles.	Amount
Capital Stock Paid in....	\$6,000	\$6,000	10	\$600

For Mileage Operated by Road Making this Report (Trackage Rights Excluded), the Operations of which are Included in the Income Account.

Name of Road.	Capital Stock.	Miles of Road.
Clarendon and Pittsford Railroad.....	\$6,000	10

PERMANENT IMPROVEMENTS FOR THE YEAR.

Total Construction and Equipment, \$11,142.30.

COST OF ROAD AND EQUIPMENT.

Item.	Total Cost to June 30, 1889.	Net Additions During Year.	Total Cost to June 30, 1890.
Construction :			
Right of Way.....	\$ 5,946 08		\$ 5,946 08
Grading and Bridge and Culvert Masonry	98,765 10		
Bridges and Trestles.			
Rails			
Ties			
Other Superstructure		\$11,142 30	109,907 40
Other items.....			
Total Construction...	\$104,711 18		\$115,853 48
Equipment :			
Locomotives.....			10,335 00
Freight Cars.....			7,300 00
Total Equipment...			\$133,488 48

INCOME ACCOUNT.

Gross Earnings from Operation.....	\$17,096 63	
Less Operating Expenses.....	9,357 51	
Income from Operation.....		\$ 7,739 12
Deductions from Income :		
Taxes.....	341 97	
Total Deductions from Income.....		\$ 341 97
Net Income.....		\$7,397 15

EARNINGS FROM OPERATION.

Item.	Actual Earnings.
Total Freight Revenue.....	\$17,096 63
Total Gross Earnings from Operation.....	17,096 63

OPERATING EXPENSES.

Item.	Chargeable to Freight Traffic.	Total.
Maintenance of Way and Structures :		
Repairs of Roadway.....	\$3,320 75	\$3,320 75
Conducting Transportation :		
Wages of Enginemen, Firemen, and Round-housemen.....	4,000 00	4,000 00
Other Expenses.....	2,036 76	2,036 76
Total.....		\$9,357 51
Recapitulation of Expenses :		
Maintenance of Way and Structures.....	\$3,320 75	
Maintenance of Equipment.....		
Conducting Transportation.....	6,036 76	
Grand Total.....		\$9,357 51

EMPLOYES AND SALARIES.

Class.	Number.	Average Daily Compensation.
General Officers :		
F. D. Proctor, President.		
E. R. Morse, Vice-President.		
F. C. Partridge, Secretary and Treasurer.		
G. C. Robinson, Supt.		
Enginemen.....	2	\$2.65
Firemen.....	1	1.35
Other Trainmen.....	4	1.75
Section Foremen.....	2	1.75
Other Trackmen.....	9	1.20

PASSENGER, FREIGHT, AND TRAIN MILEAGE.

Item.	Column for Tonnage, Num- ber Passengers, Number Trains. Mileage, Number Cars.	COLUMN FOR REVENUE AND RATES.	
		Dollars.	Cts.
Freight Traffic :			
Number of tons carried of freight earning revenue.....	64,348		
Number of tons carried one mile.....	276,356		
Total freight revenue.....		\$17,00.	63
Freight earnings per mile of road.....		1,709	06
Passenger and Freight :			
Number of freight trains.....	6 per day.		
Train Mileage :			
Miles run by freight trains.....	60 per day.		
Average number of freight cars in train.....	5		
Average number of loaded cars in train.....	4		

FREIGHT TRAFFIC MOVEMENT.

Commodity.	Freight Originating on this Road.	Freight Received from Connecting Roads and Other Carriers.
	Whole Tons.	Whole Tons.
Products of Agriculture :		
Grain	530	
Flour.....		
Other Mill Products }		
Feed, etc.		
Products of Animals :		
Hides and Leather.....		4
Products of Mines :		
Anthracite Coal.....		3,000
Sand	500	
Marble	58,000	
Products of Forest :		
Lumber.....	1,000	
Manufactures :		
Petroleum and other Oils.....		210
Iron.....		40
Iron and Steel Rails.....		110
Other Castings and Machinery..		350
Cement, Brick, and Lime.....		350
Agricultural Implements.....		24
Wagons, Carriages, Tools, etc....		12
Household Goods and Furniture...	203	
Merchandise.....		15
Total Tonnage	60,233	4,115

Total freight tonnage, 64,348.

DESCRIPTION OF EQUIPMENT.

Item.	Total Number at End of Year.
Locomotives :	
Freight.....	2
Total.....	2

MILEAGE.

Line in Use.	Main Line Owned.	RAILS.
		Steel.
Miles of Single Track	10	10
Miles of Yard Track, Sidings, and Spurs	2	2
Total Mileage Operated (all tracks)	12	12

RENEWALS OF RAILS AND TIES.

NEW RAILS LAID DURING YEAR.				NEW TIES LAID DURING YEAR.		
Kind.	Tons.	W'g't per Yard.	Average Price per Ton at Dis- tributing Point.	Kind.	Num- ber.	Average Price at Dis- tribut- ing Point.
Steel	440	70 lbs.	\$26 21	Oak and Cedar ..	1,050	35c.
Total Steel	440	70 lbs.	\$26 21	Total ...	1,050	

CONSUMPTION OF FUEL BY LOCOMOTIVES.

Locomotives.	COAL—TONS.	Total Fuel Con- sumed —Tons.	Miles Run.	Average Pounds Consumed Per Mile.
	Bituminous.			
Freight	250			303
Switching				
Construction				
Total		250	1,878	
Average Cost at dis- tributing point	\$3.80			

CHARACTERISTICS OF ROAD.

Bridges:

Number Iron 5

Gauge of Track: Standard.

STATE OF VERMONT, {
County of Rutland, } ss.

We, the undersigned, F. D. Proctor, President, and E. R. Morse, Vice-President, of the Clarendon and Pittsford Railroad Company, on our oath do severally say that the foregoing return has been prepared, under our direction, from the original books, papers, and records of said Company; that we have carefully examined the same, and declare the same to be a complete and correct statement of the business and affairs of said Company in respect to each and every matter and thing therein set forth, to the best of our knowledge, information and belief; and we further say that no deductions were made before stating the gross earnings or receipts herein set forth, except those shown in the foregoing accounts; and that the accounts and figures contained in the foregoing return embrace all of the financial operations of said Company during the period for which said return is made.

FLETCHER D. PROCTOR, *President.*

E. R. MORSE, *Vice-President.*

Subscribed and sworn to before me,
this 25th day of August, 1890.

WM. SMITH, JR.,
Notary Public.

ANNUAL REPORT OF THE FITCHBURG RAILROAD COMPANY,

FOR THE YEAR ENDING JUNE 30, 1890.

HISTORY.

Name of common carrier making this report: Fitchburg Railroad Company.

Date of Organization: March 3, 1842.

Organized under the laws of Massachusetts.

The Fitchburg Railroad, chartered March 3, 1842, was completed between Cambridge and Fitchburg, March 5, 1845.

In 1848 the road was extended into Boston.

The Peterboro and Shirley Railroad was opened in 1850, leased for ten years and purchased in 1860.

The Vermont and Massachusetts Railroad was leased January 1, 1874, for a period of 999 years, the consideration being as follows:—

Organization Expenses.....	\$ 3,000 payable quarterly.
5 per cent. on \$1,000,000 Bonds...	50,000 " Nov. and May.
6 per cent. on 3,193,000 Stock...	191,580 " Oct. and April.

If this road is surrendered, the expenditures made by the lessee for additions and betterments are to be refunded to said lessee.

The Boston, Barre and Gardner Railroad was taken possession of under a temporary operating contract, March 7, 1885. It was merged July 1, 1885, its stock being exchanged in the proportion of ten shares of B. B. and G. stock for one (1) share of Fitchburg stock, and its liabilities being assumed by the Fitchburg Railroad Company.

The Ashburnham Railroad was purchased April 22, 1885.

The Troy and Greenfield Railroad and Hoosac Tunnel was consolidated with the Fitchburg Railroad Company, February 1, 1887, under the provisions of Chapter 297 of the Acts of the Commonwealth of Massachusetts for the year 1885.

The Hoosac Tunnel Dock and Elevator Company, an auxiliary corporation chartered under the laws of the Commonwealth of Massachusetts, April 29, 1879, owning wharves, elevator and warehouses and engaged in handling and storing freight, sold all its real and personal property of every kind and description to the Fitchburg Railroad Company, April 15, 1887.

The Troy and Boston Railroad Company, a corporation of the State of New York, was consolidated with the Fitchburg Railroad Company, May 3, 1887, under the laws of the State of New York and the Commonwealth of Massachusetts. By this consolidation the following leases in force with the Troy and Boston Railroad Company, were assumed:

Southern Vermont Railroad, New York State Line to Massachusetts State Line, owned by the Commonwealth of Massachusetts, leased in perpetuity to the Troy and Boston Railroad Company at an annual rental of \$12,000;

Troy and Bennington Railroad, Hoosac Junction to Vermont State Line, owned by the Troy and Bennington Railroad Company, a corporation of the State of New York, leased at an annual rental of \$15,400. Lease expires May 27, 1901.

The Boston, Hoosac Tunnel and Western Railway and its leased line, the Troy, Saratoga and Northern Railroad, were purchased June 1, 1887.

ORGANIZATION.

Names of Directors.	Post-office Address.	Date of Expiration of Term.
Henry S. Marcy.....	Boston, Mass.....	September 24, 1890.
Robert Codman.....	Boston, Mass.....	" 24, 1890.
Rodney Wallace.....	Fitchburg, Mass.....	" 24, 1890.
Charles T. Crocker....	Fitchburg, Mass.....	" 24, 1890.
John Quincy Adams....	Quincy, Mass.....	} Appointed by the Governor of Massachusetts, and hold office one year.
David P. Kimball.....	Boston, Mass.....	
James Renfrew, Jr....	Adams, Mass.....	
Augustus Kountze....	New York City, N. Y.	September 24, 1890.
Frederick L. Ames.....	Easton, Mass.....	" 24, 1890.
George Heywood.....	Concord, Mass.....	" 24, 1890.
W. S. Webb.....	New York City, N. Y.	" 24, 1890.
Francis Smith.....	Rockland, Me.....	" 24, 1890.
William H. Hollister..	New York City, N. Y.	" 24, 1890.

Total number of stockholders at date of last election : 4,139.

Date of last meeting of stockholders for election of directors : January 28, 1890.

Post-office address of general office : Boston, Mass.

Post-office address of operating office : Boston, Mass.

OFFICERS.

President—Henry S. Marcy, Boston, Mass.

Treasurer—Daniel A. Gleason, Boston, Mass.

Chief Engineer—E. K. Turner, Fitchburg, Mass.

General Solicitor, Attorney or Counsel—George A. Torrey, Boston, Mass.

Auditor—C. S. Anthony, Boston, Mass.

General Traffic Manager—John Whitmore, Boston, Mass.

General Freight Agent—A. S. Crane, Boston, Mass.

General Passenger Agent—J. R. Watson, Boston, Mass.

General Superintendent—John Adams, Boston, Mass.

Division Superintendent—J. R. Hartwell, Boston, Mass.

Division Superintendent—J. Frank Adams, Fitchburg, Mass.

Division Superintendent—J. Crandall, Troy, N. Y.

Superintendent of Telegraph—E. A. Smith, Boston, Mass.

General Baggage Agent—Geo. F. Foye, Boston, Mass.

Purchasing Agent—Geo. J. Fisher, Boston, Mass.

PROPERTY OPERATED.

Name.	TERMINALS.		Miles of Line for Each Road Named	Miles of Line for Each Class of Roads Named.
	From	To		
Fitchburg Railroad	Boston	Fitchburg	50	
Troy & Greenfield Rd. & Hoosac Tunnel	Greenfield	Vt. State Line ..	44	
Troy & Boston Rd.	Vt. & N. Y. State Line	Troy	34.74	
Boston, Hoosac Tunnel & West- ern Railway	Massachusetts & Vt. State Line	Rotterdam Jc. ...	61.22	189.96
Fitchburg Railroad	Ice Track in Bos- ton .....	.....	.68	
Fitchburg, Water- town Branch ...	W. Cambridge ..	Roberts	8.26	
Fitchburg, Marl- boro Branch	South Acton	Marlboro	12.42	
Ashburnham R. R.	Ashburnham Jc. ...	Ashburnham	2.59	
Peterboro & Shir- ley R. R.	Ayer Jc.	Greenville, N.H. ...	23.62	
Boston, Barre & Gardner R. R. ...	Worcester Jc. ...	Winchendon ...	36	
Troy, Saratoga & Northern R. R. ...	Saratoga Jc.	Schuylerville & Saratoga	25.52	109.09
Vermont & Massa- chusetts R. R. ...	Fitchburg	Greenfield	56	
Southern Vermont R. R.	Massachusetts & Vt. State Line	N. Y. & Vt. State Line	6.19	
Vermont & Massa- chusetts R. R. ...	Turners Falls Jc. ...	Turners Falls ..	2.80	
Troy & Benning- ton R. R.	Hoosac Jc.	White Creek	5.04	70.03
		Total		369.08

CAPITAL STOCK.

Description.	Par Value of Shares.	Total Par Value Authorized.	Total Amount Issued and Outstanding.	DIVIDENDS DECLARED DURING YEAR.	
				Rate.	Amount.
Capital Stock :					
Common	\$100	\$7,000,000	\$ 7,000,000		
Preferred	100	13,775,100	13,775,100	2%	\$261,835 60
Total		\$20,775,100	\$20,775 100		\$261,835 60
Particulars and Explanations.					
Manner of Payment For Capital Stock.	No. of Shares.	Total Cash Realized.			
Issued Cash : Preferred	54,994	\$5,499,400			
Issued for Purchased Roads : Common	20,000	2,000,000			
Preferred	35,805	3,580,500			
Dock	15,125	1,512,500			
Issued for Consolidation :	50,000	5,000,000			
Preferred	17,622	1,762,200			
Preferred	13,353	1,333,300			
Preferred	872	87,200			
Total	207,751	\$20,775,100			

{ For purchase of Boston, Hoosac Tunnel and Western Railway, per terms of agreement, dated May 4, 1887.
 { For purchase of Hoosac Tunnel Dock and Elevator.

{ In accordance with agreement with Commonwealth of Massachusetts, for T. & G. Railroad and Hoosac Tunnel.
 { Troy & Boston Railroad Consolidation.
 Boston, Barre and Gardner Consolidation.

FUNDED DEBT.

Class of Bond or Obligation.	TIME.		Amount of Authorized Issue.	Amount Issued.	Rate.	INTEREST.		
	Date of Issue.	When Due.				When Payable.	Amount Accrued During Year.	Amount Paid During Year.
Fitchburg Rd. Bonds.....	Apr. 1, '74	20 yrs.	\$ 500,000	\$ 500,000	7 per ct.	April & Oct.	\$ 35,000	\$ 35,385 00
" " " " " " " " " " " "	Oct. 1, '77	20 "	500,000	500,000	"	"	30,000	30,180 00
" " " " " " " " " " " "	" 1, '79	20 "	500,000	500,000	"	"	25,000	26,100 00
" " " " " " " " " " " "	" 1, '80	20 "	500,000	500,000	"	"	25,000	24,950 00
" " " " " " " " " " " "	" 1, '81	20 "	500,000	500,000	"	"	25,000	24,850 00
" " " " " " " " " " " "	Apr. 1, '82	20 "	500,000	500,000	"	"	25,000	25,000 00
" " " " " " " " " " " "	" 1, '83	20 "	500,000	500,000	"	"	25,000	25,000 00
" " " " " " " " " " " "	March 1, '84	20 "	500,000	500,000	"	March & Sep.	20,000	20,000 00
" " " " " " " " " " " "	June 1, '85	20 "	500,000	500,000	"	June & Dec.	20,000	19,460 00
" " " " " " " " " " " "	Feb. 1, '87	50 "	5,000,000	5,000,000	"	Feb. & Aug.	150,000	150,000 00
" " " " " " " " " " " "	Apr. 1, '87	20 "	1,500,000	1,500,000	"	April & Oct.	60,000	59,600 00
" " " " " " " " " " " "	Sep. 1, '87	10 "	3,000,000	2,250,000 4	"	March & Sep.	101,250	101,250 00
" " " " " " " " " " " "	May 1, '88	20 "	2,000,000	2,000,000	"	May & Nov.	100,000	100,850 00
" " " " " " " " " " " "	March 1, '89	10 "	750,000	750,000	"	March & Sep.	37,500	37,500 00
B. B. & G. Rd. 1st Mtge. " " " "	Apr. 1, '73	20 "	---	91,300 7	"	April & Oct.	6,391	6,380 50
" " " " " " " " " " " "	Apr. 1, '73	20 "	---	299,700 5	"	April & Oct.	14,985	14,740 00
" " " " " " " " " " " "	July 1, '75	20 "	---	186,300 3	"	Jan. & July	5,589	5,589 00
" " " " " " " " " " " "	July 1, '75	20 "	---	57,300 6	"	Jan. & July	3,438	3,438 00
B. H. T. & W. Debentures " " " "	Sep. 1, '83	20 "	2,000,000	1,400,000	"	March & Sep.	70,000	70,000 00
H. T. D. & Ele. Co Mtge. Note " " " "	Apr. 1, '87	5 "	---	500,000 4	"	April & Oct.	20,000	20,000 00
Total.....			\$18,750,000	\$18,534,600			\$799,153	\$800,272 50

RECAPITULATION OF FUNDED DEBT.

Account.	Amount Issued.	INTEREST.	
		Amount Accrued During Year.	Amount Paid During Year.
Bonds	\$18,534,600	\$799,153	\$800,272 50
Total	\$18,534,600	\$799,153	\$800,272 50

CURRENT ASSETS AND LIABILITIES.

Cash and Current Assets Available for Payment of Current
Liabilities.

Cash	\$557,312 91
Bills Receivable	109,265 00
Due from Agents	466,505 81
Net Traffic Balances due from Other Companies	310,302 49
Due from Solvent Companies and Individuals	208,980 12
Other Cash Assets*	553,376 00
Total	\$2,205,742 33

* Materials and Supplies on hand, \$765,663.48.

Current Liabilities Accrued to and Including June 30, 1890.

Loans and Bills Payable	\$780,000 00
Audited Vouchers and Accounts	165,295 98
Wages and Salaries	70,654 14
Net Traffic Balances due to other Companies	382,458 97
Dividends not called for	262,433 80
Matured Interest Coupons Unpaid (including Coupons due July 1)	11,665 50
Rentals due July 1	34,008 32
Miscellaneous	12,664 43
Balance Cash Assets	486,561 19
Total	\$2,205,742 33

RECAPITULATION.

Account.	Total Amount Outstanding	APPORTIONMENT.		AMOUNT PER MILE OF ROAD.	
		To Railroads	To Other Properties.	Miles.	Amount.
Capital					
Stock ..	\$20,775,100	\$19,262,600	\$1,512,500	299.05	\$64,412 64
Bonds	18,534,600	18,034,600	500,000	299.05	60,306 30
Total	\$39,309,700	\$37,297,200	\$2,012,500	299.05	\$124,718 94

For Mileage Operated by Road Making this Report (Trackage Rights Excluded), the Operations of which are Included in the Income Account.

Name of Road.	Capital Stock.	Funded Debt.	Current Liabilities.
Fitchburg Railroad.....	\$20,775,100	\$18,534,600	\$1,719,181 14
Peterboro & Shirley Railroad			
Boston, Barre & Gardner Rd.			
Ashburnham Railroad.....			
Troy & Greenfield Rd. and Hoosac Tunnel.....			
Troy & Boston Rd.....	150,800	52,000	
Boston, Hoosac Tunnel and Western Ry.....			
Troy, Saratoga & Northern Rd.....	3,193,000	1,000,000	
Troy & Bennington Ry. Co...			
Vermont & Massachusetts Rd. Co.....			
Total.....	\$24,118,900	\$19,586,600	\$1,719,181 14

Southern Vermont Rd., owned by the Commonwealth of Mass.

PERMANENT IMPROVEMENTS FOR THE YEAR.

Item.	EXPENDITURES DURING THE YEAR.	Differences or Net Additions to Property, Etc.
	Total Expendi- tures.	
Construction :		
Right of Way		
Other Real Estate	\$ 730 44	\$ 730 44
Fences		
Buildings, Furniture and Fix- tures	72,236 08	72,236 08
Shop Machinery and Tools	4,331 19	4,331 19
Sidings and Yard Extensions	14,641 54	14,641 54
Terminal Facilities and Elevators (including Docks)	9,893 25	9,893 25
Purchase of Constructed Road	1,900 00	1,900 00
Other Items	77,894 89	77,894 89
Total Construction	\$180,166 51	\$180,166 51
Equipment :		
Locomotives and Steam-heating Passenger Cars	\$94,991 66	\$94,991 66
Sleeping, Parlor and Dining Cars	14,658 24	14,658 24
Baggage, Express and Postal Cars		
Combination Cars	84,054 27	84,054 27
Other Cars of all classes		
Floating Equipment		
Total Equipment	\$193,704 17	\$193,704 17
Grand Total Construction and Equipment	\$373,870 68	\$373,870 68

COST OF ROAD AND EQUIPMENT.

Item	Total Cost to June 30, 1889.	Net Additions During Year.	Total Cost to June 30, 1890.
Construction :			
Right of Way.			
Other Real Estate	\$ 1,541,392 23	* \$ 730 44	\$ 1,540,661 79
Fences			
Grading and Bridge and Culvert Masonry	873,556 79		873,556 79
Bridges and Trestles	463,202 19		463,202 19
Rails			
Ties	1,267,753 36		1,267,753 36
Other Superstructure,			
Buildings, Furniture and Fixtures	1,205,727 13	72,296 08	1,277,963 21
Shop Machinery and Tools	228,456 98	4,331 19	232,788 17
Engineering Expenses	50,000 00		50,000 00
Sidings and Yard Extensions	292,010 38	14,641 54	306,651 92
Terminal Facilities and Elevators, including Docks	2,223,643 32	9,893 25	2,233,536 57
Purchase of Constructed Road	24,096,010 69	1,900 00	24,097,910 69
Other items	1,103,393 28	77,894 89	1,181,288 17
Total Construction	\$33,345,146 35	\$180,166 51	\$33,525,312 86

* Credit.

COST OF ROAD AND EQUIPMENT.—Continued.

Item.	Total Cost to June 30, 1889.	Net Additions During Year.	Total Cost to June 30, 1889.
Equipment:			
Locomotives, and Steam-heating.			
Passenger Cars.....	\$ 882,330 12	\$94,991 66	\$ 977,321 78
Sleeping, Parlor and Dining Cars.....			
Baggage, Express and Postal Cars.....	538,373 86	14,658 24	553,032 10
Combination Cars.....			
Freight Cars.....			
Other Cars of all classes, } and Steam-heating.	2,119,193 01	84,054 27	2,203,247 28
Floating Equipment.....			
Total Equipment.....	3,539,896 79	193,704 17	3,733,601 16
Grand Total Cost Construction and Equipment.....	\$36,885,043 34	\$373,870 68	\$37,258,914 02

INCOME ACCOUNT.

Gross Earnings from Operation.....	36,256,815 33	
Less Operating Expenses.....	4,350,007 96	
Income from Operation.....		\$1,906,807 37
Interest on Bonds Owned.....		2,718 00
Total Income.....		\$1,909,525 37
Deductions from Income :		
Interest on Funded Debt Accrued.....	\$799,153 00	
Interest on Interest-bearing Current Liabilities Accrued, not otherwise provided for.....	8,263 44	
Rentals, including Tracks, Yards and Terminals.....	271,980 00	
Taxes.....	175,597 88	
Total Deductions from Income.....		1,254,994 32
Net Income.....		\$654,531 05
Dividends, 2 per cent., Preferred Stock.....	\$261,835 60	
Total.....		261,835 60
Surplus from Operations of Year ending June 30, 1890.....		\$392,695 45
Surplus June 30, 1889.....		286,213 19
		\$678,908 64
Less Amounts Charged off :		
Bleachery Fire Award.....	\$252,871 34	
Railroad Commissioners' Award.....	7,891 94	
Coyle Claim.....	6,202 35	
Lancaster R. R.....	17,635 51	
B., H. T. & W. R. R.....	14,990 00	299,591 14
Surplus, June 30, 1890.....		\$379,317 50

EARNINGS FROM OPERATION.

Item.	Total Receipts.	Deductions Account of Repayments, Etc.	Actual Earnings.
Passenger :			
Passenger Revenue	\$1,765,104 60		
Less Repayments :			
Tickets Redeemed.....	}	\$9,339 83	
Excess Fares Refunded			
Other Repayments.....			
Total Passenger Revenue			\$1,755,764 77
Mail			47,384 34
Express			163,472 16
Other items			28,472 96
Total Passenger Earnings			\$1,995,094 23
Freight :			
Freight Revenue	\$3,965,713 53		
Less Repayments :			
Overcharge to Shippers {	}	\$85,461 59	
Other Repayments.....			
Total Freight Revenue			\$3,880,251 94
Elevators and Docks			184,644 89
Other items			81,523 78
Total Freight Earnings			\$4,146,420 61
Total Passenger and Freight Earnings			\$6,141,514 84
Other Earnings from Operation :			
Rentals not otherwise provided for			101,160 49
Other sources			14,140 00
Total Other Earnings			\$115,300 49
Total Gross Earnings from Operation			\$6,256,815 33

BONDS OWNED.

Name.	Total Amount Held.	Rate.	Income or Interest Received.
Boston, Barre and Gardner R. R. Co.	\$90,600 00	.03	\$2,718 00

STOCKS OWNED.

Name.	Total Par Value.
Boston, Hoosac Tunnel and Western R'y Co.	\$5,934,000 00
Troy, Saratoga and Northern R'y Co.	726,000 00

For the above we have given 35,835 Shares Fitchburg Railroad Co. Preferred Stock, and 20,000 Shares Fitchburg Railroad Co. Common Stock.

The Value of this is included in the Balance Sheet as "Cost of Road."

RENTALS RECEIVED.

Designation of Property.	Situation of Property Leased.	Name of Company Using Property Leased.	Item.	Total.
Tracks :	Fitchburgh & Ashburnham Jc. . . .	Cheshire R. R. Co.	\$51,000	
	Shelburne Falls & Conway Jc. . . .	N. Y., N. H. and Hartford Rd. Co.	7,500	
Total				\$58,500 00
	Sundry Lands, Tenements, and portions of Station Buildings			42,660 49
	Grand Total Rentals Received			\$101,160 49

OPERATING EXPENSES.

Item.	Chargeable to Passenger Traffic.	Chargeable to Freight Traffic.	Total.
Maintenance of Way and Structures :			
Repairs of Roadway	\$183,680 18	\$245,498 62	\$429,178 80
Renewals of Rails	47,551 60	62,756 02	110,307 62
Renewals of Ties	49,051 60	65,311 36	114,362 96
Repairs of Bridges and Culverts	17,607 02	23,223 15	40,830 17
Repairs of Fences, Road-crossings, Signs and Cattle-guards	14,702 84	19,579 56	34,282 40
Repairs of Buildings	40,981 39	35,402 28	76,383 67
Repairs of Docks and Wharves	21,225 30	28,376 05	49,601 35
Repairs of Telegraph	1,018 42	1,352 44	2,370 86
Total	\$375,818 35	\$481,499 48	\$857,317 83
Maintenance of Equipment :			
Repairs and Renewals of Locomotives	\$101,829 59	\$135,920 49	\$237,750 08
Repairs and Renewals of Passenger Cars	79,194 80	-----	79,194 80
Repairs and Renewals of Freight Cars	-----	283,480 03	283,480 03
Shop Machinery, Tools, Etc.	15,621 13	20,998 98	36,620 11
Other Expenses	9,794 06	16,103 03	25,897 09
Total	\$206,439 58	\$456,502 53	\$662,942 11
Conducting Transportation :			
Wages of Enginemen, Firemen and Round-housemen	\$170,869 96	\$301,585 67	\$472,555 63
Fuel for Locomotives	200,843 13	314,682 99	515,526 12
Water-supply for Locomotives	11,027 41	14,982 19	26,009 60
All other Supplies for Locomotives	13,837 95	18,599 17	32,437 12
Wages of other Trainmen	123,870 24	223,896 06	347,766 30
All other Train Supplies	17,402 62	25,728 36	43,130 98
Wages of Switchmen, Flagmen and Watchmen	55,074 03	228,242 64	283,316 67
Expenses of Telegraph, including Train Despatchers and Operators	26,218 79	35,150 21	61,369 00
Wages of Station Agents, Clerks and Laborers	95,381 84	303,248 11	398,629 95
Station Supplies	20,604 94	14,329 74	34,934 68
Car Mileage—Balance	26,322 70	78,177 43	104,500 13
Loss and Damage	3,520 42	13,767 49	17,287 91
Injuries to persons	17,059 51	24,985,10	42,044 61
Total	\$782,133 54	\$1,597,375 16	\$2,379,508 70

RAILROAD COMMISSIONERS' REPORT.
OPERATING EXPENSES.—Continued.

Item.	Chargeable to Passenger Traffic.	Chargeable to Freight Traffic.	Total.
General Expenses :			
Salaries of Officers.....	\$30,529 86	\$42,282 72	72,812 58
Salaries of Clerks.....	29,762 53	60,877 41	90,639 94
General Office Expenses and Supplies.....	7,277 28	10,725 84	18,003 12
Agencies, including Salaries and Rent.....	6,156 71	295 42	6,452 13
Advertising.....	13,332 53	23 078	13,563 31
Insurance.....	5,670 73	19,427 81	25,098 54
Expense of Fast Freight Lines.....		44,954 74	44,954 74
Expense of Traffic Associa- tions.....	746 40	2,767 00	3,513 40
Expense of Stock Yards and Elevators.....		101,084 53	101,084 53
Rentals not otherwise pro- vided for.....	5,948 66	8,006 69	13,555 35
Legal Expenses.....	6,831 18	9,052 17	158,833 35
Stationery and Printing.....	14,606 95	21,487 45	36,094 40
Other General Expenses.....	4,007 78	4,176 15	8,183 93
Total.....	\$124,870 61	\$325,368 71	450,239 32
Recapitulation of Expenses :			
Maintenance of Way and Structures.....	375,818 35	481,499 48	857,317 83
Maintenance of Equipment.....	206,439 58	456,502 53	662,942 11
Conducting Transportation.....	782,133 54	1,597,375 16	2,379,508 70
General Expenses.....	124,870 61	325,368 71	450,239 32
Grand Total.....	\$1,489,262 08	\$2,860,745 88	\$4,350,007 96
Percentage of Operating Expenses to Earnings, 69.52.			

RENTALS PAID.

Name of Road.	Interest on bonds Guaranteed.	Dividends on stock Guaranteed.	Cash.	Total.
Vermont and Massachu- setts Railroad.....	\$50,000 00	\$191,580 00	\$3,000	\$244,580
Southern Vermont Rail- road.....			12,000	12,000
Troy & Bennington Rail- way.....			15,400	15,400
Total Rentals.....	\$50,000 00	\$191,580 00	\$30,400	\$271,980

GENERAL BALANCE SHEET.

Dr.	
Cost of Road.....	\$33,525,312 86
Cost of Equipment.....	3,733,601 16
Bonds of Other Companies Owned.....	90,600 00
Vermont and Massachusetts Improvements.....	1,491,000 54
Cash and Current Assets.....	2,205,742 33
Other Assets :	
Materials and Supplies.....	765,663 48
Total.....	\$41,811,920 37
Cr.	
Capital Stock.....	\$20,775,100 00
Funded Debt.....	18,534,600 00
Current Liabilities.....	1,719,181 14
Accrued Interest on Funded Debt not yet payable.....	229,927 33
Accrued Taxes not yet payable.....	109,149 40
Accrued Rent of Roads not yet payable.....	64,645 00
Improvement Fund.....	96,645 02
Profit and Loss.....	282,672 48
Total.....	\$41,811,920 37

CASH STATEMENT OF FINANCIAL OPERATIONS FOR THE YEAR.

Resources to Account For.	Item.	Total.
Net Income :		
From Operation.....	\$1,909,525 37	
Total.....		\$1,909,525 37
Increase in Liabilities :		
Increase in Current Liabilities.....	\$635,606 74	
Total.....		635,606 74
Decrease in Assets :		
Other Assets.....	\$26,420 55	
Total.....		26,420 55
Grand Total.....		\$2,571,552 66

CASH STATEMENT OF FINANCIAL OPERATIONS FOR THE
YEAR.—Continued.

Resources Accounted For.	Item.	Total.
Fixed Charges :		
Interest on Funded Debt	\$ 799,173	
Other Interest paid	8,263 44	
Rentals	271,980 00	
Taxes	175,597 88	
Total		\$1,254,994 32
Other Charges against Net Income		299,591 14
Dividends		261,835 60
Betterments to Property :		
Other Permanent Improvements	\$174,909 20	
Additional Equipment	198,961 48	
Vermont and Massachusetts R. R. Improvements	8,222 60	
Total		382,193 28
Increase in Assets :		
Cash on hand	\$187,112 19	
Cash Assets	132,628 37	
Other Assets	53,197 76	
Total		372,938 32
Grand Total		\$2,571,552 66

CONTRACTS, AGREEMENTS, ETC.

The American Express Company and the National Express Company operate over this Road.

Mails are carried at certain rates per mile based on weight as established by the Post-office Department.

Cars of Pullman Palace Car Company, and of the Wagner Palace Car Company run over this Road.

The Cheshire Railroad Company runs its trains between Ashburnham Junction and Fitchburg, for which it pays \$51,000 per annum.

The Greenwich & Johnsonville Railway Company for interchange of Passengers and Freight.

Western Union Telegraph Company.

SECURITY FOR FUNDED DEBT.

Class of Bond or Obligation.	WHAT ROAD MORTGAGED.		
	From	To	Miles.
B., B. & G. R. R. First Mtge., 7 per cent.	Worcester	Winchendon	36
B., B. & G. R. R. First Mtge., 5 per cent.			
B., B. & G. R. R. Second Mtge.			
B., B. & G. R. R. Third Mtge.			
Hoosac Tunnel, Dock and Ele- vator Co. Mtge. Note.	Wharves	Elevator and Warehouses in Charles- town.	36

EMPLOYES AND SALARIES.

Class.	Number.	Total Yearly Compensa- tion.	Average Daily Compensa- tion.
General Officers	19	\$71,087 58	
General Office Clerks	117	71,416 44	\$1 91
Station Agents	106	60,928 80	1 84
Other Station Men	457	233,106 84	1 63
Enginemen	232	267,349 44	3 69
Firemen	246	204,189 84	2 66
Conductors	189	158,679 60	2 69
Other Trainmen	592	336,875 64	1 82
Machinists	147	106,576 56	2 32
Carpenters	237	153,478 56	2 08
Other Shopmen	231	130,178 64	1 81
Section Foremen	80	58,656 00	2 35
Other Trackmen	675	305,279 76	1 45
Switchmen, Flagmen and Watch- men	268	121,104 48	1 45
Telegraph Operators and Dispatch- ers	92	48,868 80	1 70
All other Employes and Laborers ..	799	466,076 03	1 87
Total	4,487	\$2,793,853 01	\$1 95

PASSENGER, FREIGHT, AND TRAIN MILEAGE.

Item.	Column for Tonnage, Num- ber Passengers, Number Trains, Mileage, Number Cars.	COLUMN FOR REV- ENUE AND RATES.		
		Dollars.	Cts.	Mills.
Passenger Traffic :				
Number of passengers carried earning revenue	5,895,902			
Number of passengers carried one mile	91,705,034			
Average distance carried	15.55			
Total passenger revenue		1,755,764	77	
Average amount received from each passenger			29	78
Average receipts per passenger per mile			1	91
Estimated cost of carrying each passenger one mile			1	624
Passenger earnings per mile of road		4,757	14	
Passenger earnings per train-mile			92	72
Freight Traffic :				
Number of tons carried of freight earning revenue	3,971,318			
Number of tons carried one mile	390,079,822			
Average distance haul of one ton	982,243			
Total freight revenue		3,880,251	94	
Average amount received for each ton of freight			97	707
Average receipts per ton per mile				995
Estimated cost of carrying one ton one mile				733
Freight earnings per mile of road		10,513	31	
Freight earnings per train-mile			1 56	29
Passenger and Freight :				
Passenger and freight earnings		5,636,016	71	
Passenger and freight earnings per mile of road		15,270	45	
Expense per mile of road		11,786	08	
Total earnings per mile of road, including Mails, Express, etc.		16,952	46	

PASSENGER, FREIGHT, AND TRAIN MILEAGE.—Continued.

Item.	Column for Ton- nage, Number Passengers, Number Trains, Mileage, Number Cars.	COLUMN FOR REVE- NUE AND RATES.		
		Dollars.	Cts.	Mills.
Train Mileage :				
Miles run by passenger trains	1,893,601			
Miles run by freight trains	2,482,579			
Total Mileage Trains Earning Revenue.....	4,376,180			
Miles run by switching trains	1,205,842			
Miles run by construction and other trains.....	59,334			
Grand Total Train Mileage.	5,641,356			
Mileage of loaded freight cars				
—East.....	24,462,586			
Mileage of loaded freight cars				
—West.....	10,544,767			
Mileage of empty freight cars				
—East.....	446,644			
Mileage of empty freight cars				
—West.....	16,390,049			

FREIGHT TRAFFIC MOVEMENT.

Commodity.	Freight Originat- ing on this Road. Whole Tons.	Freight Received from Connect- ing Roads and other Carriers. Whole Tons.	TOTAL FREIGHT TONNAGE.	
			Whole Tons.	Per Cent.
Products of Agriculture :				
Grain.....	17,904	354,124	372,028	09.38
Flour.....	6,816	163,829	170,645	04.30
Other Mill Products.....	19,424	69,606	89,030	02.24
Hay.....	8,978	71,039	79,417	02.00
Tobacco.....	284	3,225	3,509	00.09
Cotton.....	1,596	24,161	25,757	00.65
Fruit and Vegetables.....	22,731	53,851	76,582	01.93

FREIGHT TRAFFIC MOVEMENT.—Continued.

Commodity.	Freight Originat- ing on this Road. Whole Tons.	Freight Received from Connect- ing Roads and other Carriers. Whole Tons.	TOTAL FREIGHT TONNAGE.	
			Whole Tons.	Per Cent.
Products of Animals :				
Live Stock.....	58,617	290,406	349,023	08.79
Dressed Meats.....	9,947	77,766	87,713	02.21
Other Packing-house Pro- ducts.....	4,717	33,213	39,930	00.95
Poultry, Game, and Fish.....	5,400	4,717	10,117	00.25
Wool.....	7,151	15,288	22,439	00.56
Hides and Leather.....	12,708	26,303	39,011	00.98
Products of Mines :				
Anthracite Coal.....		381,197	381,197	09.59
Bituminous Coal.....		244,464	244,464	06.16
Coke.....	1,428	16,030	17,458	00.44
Ores.....	30,624	3,121	33,745	00.85
Stone, Sand and other like Articles.....	26,167	61,831	87,998	02.22
Products of Forest :				
Lumber.....	54,512	258,039	312,551	07.87
Manufactures :				
Petroleum and other Oils....	9,058	32,839	41,897	01.05
Sugar.....	12,433	7,538	19,971	00.50
Naval Stores.....	400	324	724	00.02
Iron, Pig and Bloom.....	58,849	81,145	139,994	03.52
Iron and Steel Rails.....	3,676	14,059	17,735	00.45
Other Castings and Ma- chinery.....	13,652	17,679	31,331	00.79
Bar and Sheet Metal.....	1,311	11,230	12,541	00.31
Cement, Brick and Lime....	60,432	38,695	99,127	02.50
Agricultural Implements....	17,719	617	18,336	00.46
Wagons, Carriages, Tools, etc.	1,529	2,593	4,122	00.13
Wines, Liquors and Beers....	7,392	10,008	17,400	00.44
Household Goods and Furni- ture.....	15,222	17,753	32,975	00.83
Merchandise.....	126,874	169,092	295,966	07.45
Miscellaneous: Other com- modities not mentioned above.....	394,700	403,865	798,565	20.09
Total Tonnage.....	1,011,651	2,959,667	3,971,318	100.00

DESCRIPTION OF EQUIPMENT.

Item.	Number Added During Year.	Total Number at End of Year.	EQUIPPED WITH TRAIN BRAKE.		CARS FITTED WITH AUTOMATIC COUPLER.	
			No.	Kind.	No.	Kind.
Locomotives						
Passenger		93	93	Westingh'se		
Freight	12	64	45	"		
Switching		30				
Total	12	187	138			
Cars in Passen- ger Service:						
First-class Passenger Cars	13	145	145	Westingh'se	145	Miller hook.
Combination Passenger Cars	1	25	25	"	25	"
Baggage, Ex- press, and Postal Cars	6	40	40	"	40	"
Other Cars in Passenger Service		2	2	"	2	"
Total	20	212	212		212	
Cars in Freight Service:						
Box Cars	26	3,967	503	Westingh'se	13	Cowell. Dowling.
Flat Cars	78½	646½			98	
Stock Cars	5	197	50	"		
Coal Cars	19	677				
Other Cars	½	81	16	"		
Total	76	5,568½	569		111	

DESCRIPTION OF EQUIPMENT.—Continued.

Item.	Number Added During Year.	Total Number at End of Year.	EQUIPPED WITH TRAIN BRAKE.		CARS FITTED WITH AUTOMATIC COUPLER.	
			No.	Kind.	No.	Kind.
Cars in Company's Service:						
Gravel Cars.....	22	177				
Derrick Cars.....		16				
Caboose Cars.....	2	84		7 Westingh'se		
Other Road Cars.....	5	14				
Boarding Cars.....	15	15	15	"		
Total.....	10	306	22			
Cars Contributed to Fast Freight Line Service.....	196	1,673	484	Westingh'se	98	Dowling.
Grand Total....	106	6,086½	803		338	

MILEAGE.

Line in Use.	Main Line Owned.	Branch Line Owned.	Line Operated Under Lease.	Total Mileage Operated.
Miles of Single Track.....	189.96	109.09	70.03	369.08
Miles of Second Track.....	100.56	.68	56	157.24
Miles of Third Track.....	1.66			1.66
Miles of Yard Track, Sidings, and Spurs.....			29.11	*217.86
Total Mileage Operated (all tracks).....	292.18	109.77	155.14	745.84

*Main Line and Branches Owned, 188.75.

MILEAGE OF LINE BY STATES AND TERRITORIES.

State or Territory.	Main Line Owned.	Branch Line Owned.	Line Operated Under Lease.	Total Mileage, Excluding Trackage Rights.	RAILS. Steel.
Massachusetts	94	74.10	58.80	226.90	All
New Hampshire		9.47		9.47	"
Vermont	6.49		6.19	12.68	"
New York	89.47	25.52	5.04	120.03	"
Total Mileage Operated (single track)	189.96	109.09	70.03	369.08	

RENEWALS OF RAILS AND TIES.

NEW RAILS LAID DURING YEAR.				NEW TIES LAID DURING YEAR.		
Kind.	Tons.	Weight per Yard.	Average Price per Ton at Distributing Point.	Kind.	Number.	Average Price at Distributing point.
Steel	6,252	76 lbs.	\$32 00	Mostly Chestnut.	255,329	42c.
Total Steel	6,252	76 lbs.	\$32 00	Total	255,329	42c.

CONSUMPTION OF FUEL BY LOCOMOTIVES.

Locomotives.	COAL—TONS.		WOOD— CORDS.	Total Fuel Con- sumed. Tons.	Miles Run.	Average Pounds Consumed Per Mile.
	Anthracite.	Bituminous.				
Passenger		55,380.5	311½	55,380.5	1,893,601	62.8
Freight		97,230.8	408½	97,230.8	2,482,579	84.2
Switching	474.8	14,246.6	199	14,721.4	1,205,842	26.2
Construction.....		700.2	10½	700.2	59,334	25.4
Total.....	474.8	167,558.1	929½	168,032.9	5,641,356	64.0
Average Cost at Distributing Point.....	\$4 10	\$3 07	\$4 25			

ACCIDENTS TO PERSONS.

EMPLOYEES.

Kind of Accident.	TRAINMEN.		Switchmen, Flagmen and Watchmen, Injured.	OTHER EMPLOYEES.		TOTAL.	
	Killed.	Injured		Killed.	Injured	Killed.	Injured
Coupl'g. Uncoupl'g	2	43	1	—	—	2	44
Falling from Trains and Engines.....	2	7	—	2	—	4	7
Overh'd Obstruct'ns	—	1	—	—	—	—	1
Collisions.....	—	1	—	—	—	—	1
Derailements	1	—	—	—	—	1	—
Other Train Accid'ts	—	3	—	—	—	—	3
Other Causes.....	2	2	—	1	2	3	4
Total.....	7	57	1	3	2	10	60

OTHERS.

	PAS- SENGERS	TRESPASS- ERS.		Not Tres- passing.		TOTAL.	
	Injured.	Killed.	Injured	Not Tres- passing.		Killed.	Injured.
				Killed.	Injured.		
At Highway Cross- ings.....	—	—	—	3	4	3	4
At Stations.....	—	—	—	—	2	—	2
Other Causes.....	2	19	15	5	3	24	20
Total.....	2	19	15	8	9	27	26

CHARACTERISTICS OF ROAD.—Continued.

Bridges : 25 feet and upwards.

Number of Stone 1

Number Iron 146

Number Wooden 32

Trestles :

Number 20

Aggregate Length 7,390 feet.

Tunnels :

Number 2

Maximum length 25,081 feet.

Minimum length 418 feet.

Aggregate length of all Tunnels 25,499 feet.

Gauge of Track : 4 feet, 9 inches.

Telegraph :

Owned by this Company 130.78 miles of line.

Owned by this Company 335.10 miles of wire.

Operated by this Company 130.78 miles of line.

Operated by this Company 335.10 miles of wire.

GENERAL INFORMATION.

This Road pays rentals for terminal facilities to the following parties :

Mechanicsville—Delaware and Hudson Canal Company.

Worcester—Boston and Albany Railroad Company.

Winchendon—Cheshire Railroad Company.

This Road is a party to the following Associations, whose object is the regulation or control of Passenger or Freight traffic :

New England Railroad Presidents' Association.

Trunk Line Association.

Joint Committee.

The following Fast Freight Lines, of which this Road is a member, operate over the line of this Road :

West Shore Line.

Hoosac Tunnel Line.

Nickel Plate Line.

South-west Dispatch Line.

Lackawanna Line.

Great Eastern Line.

Erie Dispatch Line.

Interstate Dispatch Line.

Traders' Dispatch.

Erie & Boston Line.

West Shore & Boston Line.

Lackawanna & Boston Line.

Lehigh Valley & Boston.

Philadelphia & Boston.

National Dispatch Fast Freight Line.

Rome, Watertown & Ogdensburg Line.

Canada Atlantic Fast Freight Line.

STATE OF MASSACHUSETTS, } ss:
County of Suffolk. }

We, the undersigned, H. S. Marcey, President, and C. S. Anthony, Auditor, of the Fitchburg Railroad Company, on our oath do severally say that the foregoing return has been prepared, under our direction, from the original books, papers, and records of said Company; that we have carefully examined the same, and declare the same to be a complete and correct statement of the business and affairs of said Company in respect to each and every matter and thing therein set forth, to the best of our knowledge, information, and belief; and we further say that no deductions were made before stating the gross earnings or receipts herein set forth, except those shown in the foregoing accounts; and that the accounts and figures contained in the foregoing return embrace all of the financial operations of said Company during the period for which said return is made.

H. S. MARCEY, *President.*

C. S. ANTHONY, *Auditor.*

Subscribed and sworn to before me, }
this 4th day of September, 1890. }

THOMAS WHITTEMORE, *Notary Public.*

ANNUAL REPORT
OF THE
RENSSELAER AND SARATOGA RAILROAD,
BY THE
DELAWARE AND HUDSON CANAL CO., LESSEE,
FOR THE YEAR ENDING JUNE 30, 1890.
HISTORY.

Name of common carrier making this report: Delaware and Hudson Canal Company, Lessee.

ORGANIZATION.

Names of Directors.	Post-office Address.	Date of Expiration of Term.
LeGrand B. Cannon..	New York City.	
James Roosevelt.....	Hyde Park, N. Y.	
Robert M. Olyphant..	New York City.	
Benjamin H. Bristow..	New York City.	
John A. Stewart.....	New York City.	
Frederick Billings....	Woodstock, Vt.	
R. Suydam Grant	New York City.	
William H. Tillinghast	New York City.	
Johnston Livingston..	New York City.	
Alfred VanSantvoord..	New York City.	
George C. Clark.....	New York City.	
William W. Astor.....	New York City.	
James A. Roosevelt...	New York City.	

Total number of stockholders at date of last election: 2,387.

Date of last meeting of stockholders for election of directors: May 14th, 1890.

Post-office address of general office: New York City.

Post-office address of operating office: Albany, N. Y.

OFFICERS.

President—R. M. Olyphant, New York City.

Vice-President—Le Grand B. Cannon, New York City.

Vice-President, 2d—Horace G. Young, Albany, N. Y.

Secretary—F. M. Olyphant, New York City.

Treasurer—James C. Hartt, New York City.

Assistant Treasurer—Charles A. Walker, New York City.
 Cashier—Charles H. Booth, New York City.
 Chief Engineer—A. J. Swift, Albany, N. Y.
 Gen. Solicitor, Attorney, or Counsel—Edwin Young, Albany, N. Y.
 Comptroller—J. White Sprong, Albany, N. Y.
 Auditor—R. A. Henry, New York City.
 General Passenger Agent—J. W. Burdick, Albany, N. Y.
 Superintendent—C. D. Hammond, Albany, N. Y.
 Assistant Superintendent—H. C. North, Albany, N. Y.
 Superintendent of Telegraph—J. W. Burdick, Albany, N. Y.
 General Baggage Agent—C. S. Pease, Albany, N. Y.

PROPERTY OPERATED.

Name.	TERMINALS.		Miles of Line for Each Road Named.	Miles of Line for Each Class of Roads Named.
	From	To		
<i>Operated under Lease</i>				
Main Line.....	Albany.....	Lake Champlain	79.14	
<i>Branches.</i>				
West Troy and Green Island.....	West Troy..	Green Isl'nd	1.08	
Rensselaer and Saratoga.....	Troy	Waterford Junct.	5.59	
Saratoga and Schenectady	Schenectady	Ballston	14.97	
Glens Falls R. R.	Fort Edw'rd	Caldwell....	15.12	
Saratoga and Whitehall	Whitehall ..	State Line.....	6.83	
Rutland and Whitehall	State Line..	Castleton ..	6.83	
Rutland and Washington	Eagle Bridge ..	Rutland	62.44	192.00
<i>Line of Proprietary Companies.</i>				
Mechanicsville and Fort Edward.....	Mech'ville ..	Stillwater..	2.86	2.86
Total				194.86
Total Mileage Operated.....				194.86

RECAPITULATION.

For Mileage Operated by Road Making this Report (Trackage Rights Excluded), the Operations of which are included in the Income Account.

Name of Road.	Capital Stock.	Funded Debt.	Miles.
Rensselaer and Saratoga.....	\$8,831,900 00	\$2,000,000 00	25.48
Saratoga and Whitehall.....			47.22
Troy, Salem and Rutland ..			62.44
West Troy, and Green Island			1.08
Glens Falls.....			15.12
Rutland and Whitehall.....			6.83
Albany and Vermont.....			12.18
Saratoga and Schenectady.....			21.65
Mechanicville and Fort Edward.....	\$10,000 00		2.86
Total.....			194.86

The Current Liabilities of the Mechanicville and Fort Edward Road are \$49,971.99. The Total Liabilities, \$59,971.99.

PERMANENT IMPROVEMENTS FOR THE YEAR.

Item.	EXPENDITURES DURING THE YEAR.	
	Not Included in Operating Expenses.	Total Expenditures.
Equipment :		
Locomotives.....	\$131,272 27	\$131,272 27
Passenger Cars, (deduction).....	1,135 16	1,135 16
Baggage, Express and Postal Cars.....	4,146 53	4,146 53
• Freight Cars.....	850 00	850 00
Total Equipment.....	\$133,433 64	\$133,433 64

COST OF ROAD AND EQUIPMENT.

Item.	Total Cost to June 30, 1889.	Net Additions During Year.	Total Cost to June 30, 1890.
Equipment :			
Locomotives.....	\$137,608 56	\$131,272 27	\$268,880 83
Passenger Cars ...	212,956 39	1,135 16 *	211,821 23
Baggage, Express, and Postal Cars....	8,569 44	4,146 53	12,715 97
Freight Cars	258,164 77	850 00 *	257,314 77
Total Equipment	\$617,299 16	\$133,433 64	\$750,732 80

Cost of Equipment per Mile, \$3,853.00

* Deduct.

INCOME ACCOUNT.

Gross Earnings from Operation.....	\$2,622,865 85	
Less Operating Expenses.....	1,501,982 40	
Income from Operation.....	\$1,120,883 45	
Miscellaneous Income, less Expenses....	6,681 50	
Total Income.....		\$1,127,564 95
Deductions from Income :		
Rentals, including Tracks, Yards, and Terminals	\$954,412 28	
Taxes	109,747 78	
Total Deductions from Income.....		\$1,064,160 06
Net Income.....		\$63,404 89
Surplus from Operations of Year ending June 30, 1890.....		\$63,404 89
Deficit on June 30, 1889.....		\$303,898 96
Deficit on June 30, 1890.....		\$240,494 07

EARNINGS FROM OPERATION.

Item.	Total Receipts.	Deductions Account of Repayments, Etc.	Actual Earnings.
Passenger :			
Passenger Revenue	\$868,145 64		
Less Repayments :			
Tickets Redeemed		\$13,156 64	
Excess Fares Refunded		925 64	
Other Repayments		165 86	
Total Deductions		\$14,248 14	
Total Passenger Revenue			\$853,897 50
Mail			24,821 20
Express			58,727 32
Extra Baggage and Storage			5,768 61
Other items			2,319 92
Total Passenger Earnings			\$945,534 55
Freight :			
Freight Revenue	\$1,624,808 29		
Less Repayments :			
Overcharge to Shippers		\$4,623 68	
Total Deductions		\$4,623 68	
Total Freight Revenue			\$1,620,184 61
Total Freight Earnings			\$1,620,184 61
Total Passenger and Freight Earnings			\$2,565,719 16
Other Earnings from Operation :			
Telegraph Companies			\$ 4,426 04
Rentals not otherwise provided for			10,279 30
Other Sources			59 89
Troy Toll Bridge			42,381 46
Total Other Earnings			\$57,146 69
Total Gross Earnings from Operation			\$2,622,865 85

MISCELLANEOUS INCOME.

Item.	Gross Income.
Champlain Transportation Company Dividend on Stock, \$95,450.00 at 7 per cent*.....	\$6,681 50

* This Stock forms part of the Property of the Rensselaer and Saratoga Railroad Company.

OPERATING EXPENSES.

Item.	Chargeable to Passenger Traffic.	Chargeable to Freight Traffic.	Total.
Maintenance of Way and Structures :			
Repairs of Roadway.....	\$38,449 44	\$63,262 27	\$101,711 71
Renewals of Rails.....	10,942 38	17,834 19	28,776 57
Renewals of Ties.....	14,604 82	24,745 24	39,350 06
Repairs of Bridges and Culverts.....	5,005 13	8,469 05	13,474 18
Repairs of Fences, Road-crossings, Signs and Cattle-guards.....	2,618 70	4,056 87	6,675 57
Repairs of Buildings.....	13,112 47	14,569 34	27,681 81
Other Expenses.....	10,180 82	16,926 69	27,107 51
Total.....	\$94,913 76	\$149,863 65	\$244,777 41
Maintenance of Equipment :			
Repairs and Renewals of Locomotives.....	\$21,556 72	\$37,711 43	\$59,268 17
Repairs and Renewals of Passenger Cars.....	35,724 38		35,724 38
Repairs and Renewals of Freight Cars.....		64,385 76	64,385 76
Shop Machinery, Tools, etc.,	2,468 19	4,125 27	6,593 46
Other Expenses.....	11,138 54	18,958 39	30,091 93
Total.....	\$70,887 83	\$125,175 87	\$196,063 70
Conducting Transportation :			
Wages of Enginemen, Firemen, and Round-house-men.....	\$51,057 20	\$86,188 84	\$137,246 04

OPERATING EXPENSES.—Continued.

Item.	Chargeable to Passenger Traffic.	Chargeable to Freight Traffic.	Total.
Fuel for Locomotives.....	\$110,858 54	\$189,849 52	\$300,708 06
Water-supply for Locomotives.....	2,700 50	4,671 48	7,371 98
Wages of other Trainmen.....	44,038 70	97,872 27	141,910 97
All other Train Supplies.....	16,293 54	26,007 26	42,300 80
Wages of Switchmen, Flagmen, and Watchmen.....	32,154 43	26,490 00	58,644 43
Expense of Telegraph, including Train Dispatchers and Operators.....	7,707 04	22,541 11	30,248 15
Wages of Station Agents, Clerks and Laborers.....	34,318 03	128,644 45	162,962 48
Station Supplies.....	9,410 34	5,326 44	14,736 78
Car Mileage—Balance.....	15,646 11	16,603 29	32,249 40
Loss and Damage.....	469 71	3,038 13	3,507 84
Injuries to Persons.....	4,738 74	3,447 32	8,186 06
Other Expenses.....	9,255 00	25,270 98	34,525 98
Total.....	\$338,647 88	\$635,951 09	\$974,598 97
General Expenses :			
Salaries of Officers.....	\$11,369 90	\$25,483 99	\$36,853 89
Salaries of Clerks.....			
General Office Expenses and Supplies.....	2,248 78	4,802 81	7,051 59
Agencies, including Salaries and Rent.....	3,832 32	2,323 89	6,156 21
Advertising.....	4,118 89	20 00	4,138 89
Insurance.....	4,486 87	9,088 13	13,575 00
Legal Expenses.....	2,236 94	3,002 63	5,239 57
Stationery and Printing.....	5,272 82	8,090 96	13,363 78
Other General Expenses.....	88 39	75 00	163 39
Total.....	\$33,654 91	\$52,887 41	\$86,542 32
Recapitulation of Expenses :			
Maintenance of Way and Structures.....	\$ 94,913 76	\$149,863 65	\$244,777 41
Maintenance of Equipment.....	70,887 83	125,175 87	196,063 70
Conducting Transportation.....	338,647 88	635,951 09	974,598 97
General Expenses.....	33,654 91	52,887 41	86,542 32
Grand Total.....	\$538,104 38	\$963,878 02	\$1,501,982 40
Percentage of Operating Expenses to Earnings.....	57.27%		

RENTALS PAID.

Name of Road.	Interest on Bonds Guaranteed.	Dividends on Stock Guaranteed.	Cash.	Total.
Rensselaer and Saratoga	\$140,000 00	\$703,708 00	\$ 1,000 00	\$844,708 00
Albany and Ver- mont			20,000 00	20,000 00
New York Cen. and Hud. River			2,500 00	2,500 00
Rutland and Whitehall			15,492 00	15,492 00
Saratoga and Schenectady			31,750 00	31,750 00
Green Island Lots			455 81	455 81
Delaware and Hudson Canal Company			39,506 47	39,506 47
Total Rentals				\$954,412 27

CASH STATEMENT OF FINANCIAL OPERATIONS
FOR THE YEAR.

Resources to Account For.	Item.	Total.
Net Income :		
From Operation	\$1,120,883 45	
From Other Sources	6,681 50	
Total		\$1,127,564 95
Grand Total		\$1,127,564 95
Resources Accounted For.	Item.	Total.
Fixed Charges :		
Rentals	\$954,412 28	
Taxes	109,747 78	
Total		\$1,064,160 06
Miscellaneous :		
Delaware and Hudson Canal Company, Lessee		63,404 89
Grand Total		\$1,127,564 95

CONTRACTS, AGREEMENTS, ETC.

National Express Company, which pays for local freight one and one-half first-class tariff rates; between New York and Rutland and Rouses Point, N. Y., two-thirds first-class; between other competing points, first class; also 10 per cent. of its profits.

Mails are transported for the compensation fixed by the government.

Wagner Palace Car Company, which is paid three cents per mile run for Sleeping Cars, and one cent per mile for Drawing Room Cars.

Pullman Palace Car Company, which is paid three cents per mile run.

The Western Union Telegraph Company receives 50 per cent of the receipts from revenue business of the lines on this road, which are owned and operated by the Railroad Company, with the exception of one wire from Eagle Bridge to Castleton, (47.56 miles,) which is owned by the Western Union Telegraph Company, and operated by the Railroad Company. The Telegraph Company's proportion of receipts being the same as on rest of line.

EMPLOYES AND SALARIES.

Class.	Number.	Total Yearly Compensation	Average Daily Compensation.
General Officers.....	4	\$ 14,910 81	
General Office Clerks.....	37	21,943 08	\$1.62
Station Agents and Clerks....	98	61,386 27	1.71
Other Station Men.....	185	94,789 24	1.40
Enginemen.....	64	77,735 59	3.88
Firemen.....	64	44,889 08	2.24
Conductors.....	39	37,925 57	3.10
Other Trainmen.....	155	103,985 40	2.14
Machinists.....	66	40,854 67	1.98
Carpenters.....	90	52,961 21	1.85
Other Shopmen.....	194	100,641 99	1.67
Section Foremen.....	50	26,594 00	1.45
Other Trackmen.....	240	85,536 00	1.10
Switchmen, Flagmen and Watchmen.....	128	51,221 41	1.12
Telegraph Operators and Dis- patchers.....	40	26,274 17	1.80
All other Employes and La- borers.....	277	126,218 51	1.43
Total.....	1,731	\$967,867 00	\$1.69
Distribution of Above :			
General Administration.....	41	\$ 36,853 89	\$2.46
Maintenance of Way and Structures.....	410	179,810 48	1.33
Maintenance of Equipment.....	505	252,387 90	1.60
Conducting Transportation.....	775	498,814 73	1.88
Total.....	1,731	\$967,867 00	\$1.69

PASSENGER, FREIGHT, AND TRAIN MILEAGE.

Item.	Column for Ton- nage, Number Passengers, Number Trains, Mileage, Number Cars.	COLUMN FOR REVE- NUE AND RATES.		
		Dollars.	Cts.	Mills.
Passenger Traffic :				
Number of passengers carried earning revenue.....	2,268,173			
Number of passengers carried one mile.....	35,534,979			
Average distance carried.....	15.71			
Total passenger revenue.....		\$853,897	50	
Average amount received from each passenger.....			37	647
Average receipts per passenger per mile.....			02	403
Average cost of carrying each passenger one mile.....			01	514
Passenger earnings per mile of road.....		4,852	38	
Passenger earnings per train-mile.....			1 33	342
Freight Traffic :				
Number of tons carried of freight earning revenue.....	2,625,253			
Number of tons carried one mile.....	142,497,817			
Average distance haul of one ton.....	54.28			
Total freight revenue.....		1,620,184	61	
Average amount received for each ton of freight.....			61	715
Average receipts per ton per mile.....			01	137
Estimated cost of carrying one ton one mile.....			00	676
Freight earnings per mile of road.....		8,314	61	
Freight earnings per train-mile.....			2 74	196
Passenger and Freight :				
Passenger and freight revenue.....		2,474,082	11	
Passenger and freight revenue per mile of road.....		12,696	72	
Expense per mile of road.....		7,708	01	

PASSENGER FREIGHT AND TRAIN MILEAGE.—Continued.

Item.	Column for Ton- nage, Number Passengers, Number Trains, Mileage, Number Cars.	COLUMN FOR REVE- NUE AND RATES.		
		Dollars.	Cts.	Mills.
Total earnings per mile of road, including Mails, Ex- press, etc.....		\$13,460	26	
Number of passenger trains..	24,235			
Number of freight trains....	14,059			
Number of mixed trains.....	2,841			
Train Mileage :				
Miles run by passenger trains	695,897			
Miles run by freight trains..	551,262			
Miles run by mixed trains...	52,830			
Total Mileage Trains Earn- ing Revenue.....	1,299,989			
Miles run by construction and other trains.....	8,111			
Grand Total Train Mileage	1,308,100			
Mileage of loaded freight cars				
—North	6,411,817			
Mileage of loaded freight cars				
—South	5,246,032			
Mileage of empty freight cars				
—North	2,137,273			
Mileage of empty freight cars				
—South	1,748,677			
Average number of freight cars in train	26			
Average number of loaded cars in train	20			
Average number of empty cars in train.....	6			
Average number of tons of freight in train.....	241.16			
Average number of tons of freight in each loaded car.	12.22			

FREIGHT TRAFFIC MOVEMENT.

Commodity.	Freight Originat- ing on this Road.	Freight Received from Con- necting Roads and Other Carriers.	TOTAL FREIGHT TONNAGE.	
			Whole Tons.	Per Cent.
Products of Agriculture :				
Grain.....	44,683	32,861	77,544	2.95
Flour.....	10,591	14,654	25,245	.96
Other Mill Products.....	11,278	7,820	19,098	.73
Hay.....	7,749	5,745	13,494	.51
Tobacco.....	1,047	273	1,320	.05
Cotton.....	2,504	1,429	3,933	.15
Fruit and Vegetables.....	26,364	2,924	29,288	1.12
Products of Animals :				
Live Stock.....	3,287	5,155	8,442	.32
Dressed Meats.....	3,279	5,260	8,539	.33
Other Packing-house Pro- ducts.....	18,053	4,161	22,214	.85
Poultry, Game, and Fish.....	347	197	544	.02
Wool.....	1,118	1,074	2,192	.08
Hides and Leather.....	3,523	4,030	7,553	.29
Products of Mines :				
Anthracite Coal.....		542,744	542,744	20.67
Bituminous Coal.....		219,406	219,406	8.36
Coke.....	244	87,660	87,904	3.35
Ores.....	512	409,331	409,843	15.61
Stone, Sand, and other like Articles.....	204,138	60,852	264,990	10.09
Products of Forest :				
Lumber.....	37,148	141,512	178,660	6.81
Manufactures :				
Petroleum and other Oils.....	7,640	4,957	12,597	.48
Sugar.....	6,598	797	7,395	.28
Naval Stores.....	26	11	37	.00
Iron, Pig and Bloom.....	1,278	89,830	91,108	3.47
Iron and Steel Rails.....	9,821	10,208	20,029	.76
Other Castings and Machin- ery.....	3,533	3,521	7,054	.27

FREIGHT TRAFFIC MOVEMENT.—Continued.

Commodity.	Freight Originat- ing on this Road.	Freight Received from Con- necting Roads and Other Carriers.	TOTAL FREIGHT TONNAGE.	
			Whole Tons.	Per Cent.
Manufactures.—Continued :				
Bar and Sheet Metal.....	7,456	6,617	14,073	.54
Cement, Brick, and Lime..	49,248	4,272	53,520	2.04
Agricultural Implements..	620	426	1,046	.04
Wagons, Carriages, Tools, etc.....	982	1,341	2,323	.09
Wines, Liquors, and Beers..	8,774	57	9,431	.36
Household Goods and Fur- niture	3,270	1,828	5,098	.19
Other Manufactures.....	133,120	65,837	198,957	7.58
Merchandise	10,722	13,776	24,498	.93
Miscellaneous :				
Other Commodities not mentioned above.....	95,517	159,617	255,134	9.72
Total Tonnage.....	714,470	1,910,783	2,625,253	100.00

DESCRIPTION OF EQUIPMENT.

Item.	Number Added During Year.	Total Number at End of Year.	EQUIPPED WITH TRAIN BRAKE.		CARS FITTED WITH AUTOMATIC COUPLER.	
			No.	Kind.	No.	Kind.
Locomotives :						
Passenger	2	50	50	Westing- house.		
Freight	12	32	14			
Switching		7				
Total	14	89	64			

DESCRIPTION OF EQUIPMENT.—Continued.

Item.	Number Added During Year.	Total Number at End of Year.	EQUIPPED WITH TRAIN BRAKE.		CARS FITTED WITH AUTOMATIC COUPLER.	
			No.	Kind.	No.	Kind.
Cars in Passenger Service :						
First-class Passenger Cars.....	1	111	111	Westing-house.	111	Miller.
Second-class Passenger Cars.....		8	8		8	"
Baggage, Express, and Postal Cars....	1	35	35	"	35	"
Total.....	1	154	154		154	
Cars in Freight Service :						
Box Cars.....		849				
Flat Cars.....		460				
Stock Cars.....		5				
Coal Cars.....		488				
Total.....		1,802				
Cars in Company's Service :						
Derrick Cars.....		10				
Caboose Cars.....		24				
Other road Cars.....		5	3	Westing-house.	3	Miller.
Total.....		39	3		3	
Total Owned.....	15	2,084				
Grand Total.....	15	2,084				

MILEAGE.

MILEAGE OF ROAD OPERATED.

Line in Use.	Line Oper- ated under Lease.	Total Mileage Operated.	New Line Constructed During Year.	RAILS.	
				Iron.	Steel.
Miles of Single Track.....	194.86	194.86		1.52	193.34
Miles of Second Track.....	38.49	38.49			38.49
Miles of Yard Track, Sidings, and Spurs.....	94.10	94.10	1.40	94.10	
Total Mileage Operated (all tracks)	327.45	327.45	1.40	95.62	231.83

MILEAGE OF LINE BY STATES AND TERRITORIES.

MILEAGE OPERATED BY ROAD MAKING THIS REPORT.

State or Territory.	Line Oper- ated under Lease.	Total Mileage Excluding Trackage Rights.	RAILS.	
			Iron.	Steel.
New York	158.31	158.31	1.52	156.69
Vermont	36.65	36.65		36.65
Total Mileage Op- erated (single track)	194.86	194.86	1.52	193.34

RENEWALS OF RAILS AND TIES.

NEW RAILS LAID DURING YEAR.

Kind.	Tons.	Weight Per Yard.	Average Price Per Ton at Distrib- uting Point.
Iron:			
Repair	298.57	62 pounds.	\$25 84
Repair	88.72	56 "	26 70
Scrap	17.97	62 "	20 19
Scrap	18.56	56 "	20 03
Total Iron.....	423.82		\$25 52
Steel:			
New	1,921.17	67 pounds.	\$31 39
New	1.61	62 "	27 70
Repair	4.28	67 "	25 18
Repair	640.81	62 "	25 08
Scrap	45.15	62 "	22 04
Total Steel.....	2,613.02		\$29 67

NEW TIES LAID DURING YEAR.

Kind.	Number.	Average Price at Distributing Point.
White Oak.....	76,602	50 cents.
Red Oak.....		32 "
Chestnut.....		45 "
Yellow Pine.....		53 "
Total	76,602	

CONSUMPTION OF FUEL BY LOCOMOTIVES.

Locomotives.	COAL—TONS.		WOOD— CORDS.
	Anthracite.	Bituminous.	Hard.
Passenger	27,582	1,995	237
Freight	27,236	1,878	234
Switching.....	19,031		162
Construction	1,539	29	14
Total.....	75,388	3,902	647
Average Cost at Distrib- uting Point.....	\$3 81	\$3 27	\$3 54

CONSUMPTION OF FUEL BY LOCOMOTIVES.—Continued.

Locomotives.	Total Fuel Consumed—Tons.	Miles Run.	Average Pounds Consumed Per Mile.
Passenger	29,735	750,360	88.76
Freight	29,270	740,955	88.48
Switching	19,139	517,751	82.80
Construction	1,577	42,140	83.83
Total	79,721	2,051,206	87.06

ACCIDENTS TO PERSONS.

Kind of Accident.	EMPLOYES.							
	TRAINMEN.		SWITCHMEN, FLAGMEN, AND WATCHMEN.		OTHER EMPLOYES.		TOTAL.	
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
Coupling and Uncoupling	1	15					1	15
Falling from Trains and Engines	1					1	1	1
Collisions					1		1	
Derailments		1						1
Other Train Accidents				1				1
At Stations	1	1	1	2			2	3
Other Causes		7			4	3	4	10
Total	3	24	1	3	5	4	9	31

Kind of Accident.	PASSENGERS.		OTHERS.				TOTAL.	
	Killed.	Injur'd	TRESPASSERS.	NOT TRESP'NG.			Kld	Injd
Collisions		1						1
Other Train Accid's						1		1
At High'y Crossings				6	1		6	1
At Stations	3	1	2	1			2	1
Other Causes	1	4	6	3	1		7	3
Total	4	6	8	4	7	2	15	6

CHARACTERISTICS OF ROAD.

PROFILE.

ALIGNMENT.

WORKING DIVISIONS OR BRANCHES.

WORKING DIVISIONS OR BRANCHES.			ASCENDING GRADES.			DESCENDING GRADES.						
From	To	Miles.	Number of Curves.	Aggregate Length of Curved Line. Miles.	Length of Straight Line. Miles.	Length of Level Line. Miles.	ASCENDING GRADES.		DESCENDING GRADES.			
							Number.	Sum of Ascents. Feet.	Aggregate Length of Ascending Grades. Miles.	Number.	Sum of Descents. Feet.	Aggregate Length of Descending Grades. Miles.
Albany.....	Lake Champlain.....	79.14	106	20.04	59.10	18.97	45	658	29.20	37	514	30.97
West Troy.....	Green Island.....	1.08	3	.59	.49	.45	1	6	.21	3	16	.42
Troy.....	Waterford Junction.....	5.59	10	1.48	4.11	2.26	8	30	1.92	6	21	1.41
Schenectady.....	Ballston.....	14.97	13	3.80	11.17	1.74	7	87	8.67	7	36	4.56
Fort Edward.....	Caldwell.....	15.12	67	7.68	7.44	2.52	10	526	7.84	8	331	5.26
Whitehall.....	State Line.....	6.83	13	2.60	4.23	1.14	4	238	4.91	3	17	.78
State Line.....	Castleton.....	6.83	11	1.84	4.99	1.55	8	126	3.68	3	38	1.00
Eagle Bridge.....	Rutland.....	62.44	64	13.80	48.64	11.56	28	811	28.50	14	702	22.38
Mechanicville.....	Stillwater.....	2.86	8	.86	2.00	.74	2	29	.97	3	23	1.15
Total.....		194.86	295	52.69	142.17	40.93	113	2,511	85.40	84	1,698	68.53

CHARACTERISTICS OF ROAD.—Continued.

Bridges :

Number Iron	95
Number Wooden	11

Trestles :

Number	7
Aggregate length	6,306 feet.

Tunnels :

Number	1
Aggregate length of all Tunnels	1,188 feet.

Gauge of Track 4 feet 8½ inches.

Telegraph :

Owned by this Company	119.17 miles of line.
Owned by this Company	337.48 miles of wire.
Operated by this Company	166.73 miles of line.
Operated by this Company	385.04 miles of wire.

GENERAL INFORMATION.

This Road has the use of the New York Central and Hudson River Railroad Passenger Station at Albany, N. Y., for its local trains between Albany and Troy.

Terminal privileges at Rutland, Vt., of station houses and tracks of the Central Vermont Railroad, and freight house and tracks of the Bennington and Rutland Railroad.

The East and West Fast Freight Line operates over this Road.

STATE OF NEW YORK, } ss.
County of New York, }

I, the undersigned, James C. Hartt, Treasurer, of the Delaware and Hudson Canal Company, on my oath do say that the foregoing return has been prepared, under my direction, from the original books, papers, and records of said Company; that I have carefully examined the same, and declare the same to be a complete and correct statement of the business and affairs of said Company in respect to each and every matter and thing therein set forth, to the best of my knowledge, information, and belief; and I further say that no deductions were made before stating the gross earnings or receipts herein set forth, except those shown in the foregoing accounts; and that the accounts and figures contained in the foregoing return embrace all of the financial operations of said Company during the period for which said return is made.

JAMES C. HARTT, *Treasurer.*

Subscribed and sworn to before me,
this 22d day of August, 1890.

FRANK WALLING,

Notary Public, New York County.

ANNUAL REPORT OF THE HOOSAC TUNNEL AND WILMINGTON RAIL- ROAD COMPANY,

FOR THE YEAR ENDING JUNE 30, 1890.

HISTORY.

Name of common carrier making this report: Hoosac Tunnel and Wilmington Railroad Company.

Date of organization: December 28th, 1886.

Organized under the laws of the State of Massachusetts.

ORGANIZATION.

Names of Directors.	Post-office Address.	Date of Expiration of Term.
Daniel H. Newton...	Holyoke, Mass.....	
Moses Newton.....	Holyoke, Mass.....	
John C. Newton.....	Holyoke, Mass.....	
James Ramage.....	Holyoke, Mass.....	
George W. Millar.....	Holyoke, Mass.....	

Total number of stockholders at date of last election: Six.

Date of last meeting of stockholders for election of directors: May 3, 1889.

Post-office address of general office: Holyoke, Mass.

Post-office address of operating office: Readsboro, Vt.

OFFICERS.

President—Daniel H. Newton, Holyoke, Mass.

Vice-President—James Ramage, Holyoke, Mass.

Secretary—Ernest P. Cox, Holyoke, Mass.

Treasurer—John C. Newton, Holyoke, Mass.

Auditor—Moses Newton, Holyoke, Mass.

Superintendent—Moses Newton, Holyoke, Mass.

PROPERTY OPERATED.

Name.	TERMINALS.		Miles of Line for Each Road Named.
	From	To	
Hoosac Tunnel & Wilmington...	Hoosac Tunnel, Mass.	State Line...	8
Deerfield River Co.'s Railroad...	State Line.....	Readsboro, Vt.	3
Total Mileage Operated...	.....	.....	11

PROPERTY LEASED, OR OTHERWISE ASSIGNED FOR OPERATION.

At a Directors' meeting of the Deerfield River Company held June 26th, 1888, it was voted to ratify lease of the Railroad between State Line and Readsboro, owned by the Deerfield River Company, the rental to be 3-11ths of the net receipts of the line from Readsboro, Vt., to Hoosac Tunnel, Mass. .

CAPITAL STOCK.

Description.	Par Value of Shares.	Total Par Value Authorized.	Total Amount Issued and Outstanding.
Capital Stock : Common...	\$100 00	\$50,000 00	\$50,000 00
Total.....	\$100 00	\$50,000 00	\$50,000 00

Manner of Payment for Capital Stock.	Number of Shares.	Total Cash Realized.
Issued for Cash: Common.....	500	\$50,000 00
Total.....	500	\$50,000 00

CURRENT ASSETS AND LIABILITIES.

Cash and Current Assets Available for Payment of Current Liabilities.

Due from Solvent Companies and Individuals.....	\$ 119 42
Balance—Current Liabilities	64,250 04
Total.....	\$64,369 46

Current Liabilities Accrued to and Including June 30, 1890.

Loans and Bills Payable.....	\$62,681 96
Interest Unpaid.....	1,687 50
Total.....	\$64,369 46

RECAPITULATION.

Account.	Total Amount Outstand- ing.	APPORTION- MENT.	AMOUNT PER MILE OF ROAD.	
		To Railroads	Miles.	Amount.
Capital Stock..	\$50,000 00	\$50,000 00	8	\$6,250 00
Total... ..	\$50,000 00	\$50,000 00	8	\$6,250 00

For Mileage Operated by Road Making this Report (Trackage Rights Excluded), the Operations of which are Included in the Income Account.

Name of Road.	Capital Stock.	Current Liabilities.	Total.	AMOUNT PER MILE OF ROAD.	
				Miles.	Amount.
Hoosac Tunnel & Wilmington Rd.	\$50,000 00	\$64,369 46	\$114,369 46	8	\$14,296 18
Grand Total...	\$50,000 00	\$64,369 46	\$114,369 46	8	\$14,296 18

PERMANENT IMPROVEMENTS FOR THE YEAR.

Item.	Total Expenditures During the Year.	Credits Property and Material Sold.	Differences or Net Additions to Property, Etc.
Construction :			
Grading and Bridge and Culvert Masonry.....	\$ 224 00		\$224 00
Rails	1,186 38	\$593 19	593 19
Total Construction.....	\$1,410 38	\$593 19	\$817 19
Grand Total Construction and Equipment	\$1,410 38	\$593 19	\$817 19

COST OF ROAD AND EQUIPMENT.

Item.	Total Cost to June 30, 1889.	Net Additions During Year.	Total Cost to June 30, 1890.
Total Construction....	\$109,367 60	\$817 19	\$110,184 79

Equipment leased and kept in repair by the owners.

INCOME ACCOUNT.

Gross Earnings from Operation.....	\$18,420 79	
Less Operating Expenses.....	9,895 50	
Income from Operation.....	\$ 8,525 29	
Total Income.....		\$8,525 29
Deductions from Income :		
Interest on Floating Debt Accrued During Year	\$ 3,359 10	
Taxes.....	139 12	
Other Deductions, Rental Deerfield River Company's Railroad.....	1,632 50	
Rental Rolling Stock.....	2,400 00	
Total Deductions from Income.....		\$7,530 72
Net Income.....		\$ 994 57
Surplus from Operations of Year ending June 30, 1890		\$ 994 57
Deficit on June 30, 1889.		5,059 82
Deficit on June 30, 1890		\$4,065 25

EARNINGS FROM OPERATION.

Item.	Total Receipts.	Actual Earnings.
Passenger :		
Passenger Revenue	\$3,852 27	
Total Passenger Revenue		\$3,852 27
Mail	\$489 47	
Express	178 24	667 71
Total Passenger Earnings		\$4,519 98
Freight :		
Freight Revenue	\$13,900 81	
Total Freight Revenue		\$13,900 81
Total Freight Earnings		\$13,900 81
Total Passenger and Freight Earnings		18 420 79
Total Gross Earnings from Operation		\$18,420 79

OPERATING EXPENSES.

Item.	Chargeable to Passenger Traffic.	Chargeable to Freight Traffic.	Total.
Maintenance of Way and Structures :			
Repairs of Roadway	\$ 644 71	\$1,934 12	\$2,578 83
Renewals of Ties	240 35	741 07	981 42
Repairs of Telegraph	6 77	20 33	27 10
Total	\$ 891 83	\$2,695 52	\$3,587 35
Conducting Transportation :			
Wages of Enginemen, Firemen and Round-housemen	\$ 235 39	\$ 706 17	\$ 941 56
Fuel for Locomotives	209 51	628 55	838 06
All other Supplies for Locomotives	124 73	374 21	498 94
Wages of other Trainmen	66 82	200 48	267 30

OPERATING EXPENSES.—Continued.

Item.	Chargeable to Passenger Traffic.	Chargeable to Freight Traffic.	Total.
Wages of Station Agents, Clerks, and Laborers.....	\$ 537 87	\$1,613 64	\$2,151 51
Station Supplies.....	37 32	111 98	149 30
Loss and Damage.....	20 00	21 07	41 07
Total.....	\$1,231 64	\$3,656 10	\$4,887 74
General Expenses:			
Salaries of Officers.....	\$ 250 00	\$ 750 00	\$1,000 00
Salaries of Clerks.....			
Advertising.....			
Legal Expenses.....			
Stationery and Printing.....			
Other General Expenses.....	32 58	97 76	130 34
Total.....	\$355 10	\$1,065 31	\$1,420 41
Recapitulation of Expenses:			
Maintenance of Way and Structures.....	\$ 891 83	\$2,695 52	\$3,587 35
Conducting Transportation.....	1,231 64	3,656 10	4,887 74
General Expenses.....	355 10	1,065 31	1,420 41
Grand Total.....	\$2,478 57	\$7,416 93	\$9,895 50
Percentage of Operating Ex- penses to Earnings.....	53.72 100%		

RENTALS PAID.

Name of Road,	Total.
Deerfield River Company's Railroad.....	\$1,632 50
Total Rentals.....	\$1,632 50

GENERAL BALANCE SHEET.

Cost of Road	\$110,184 79	Capital Stock	\$ 50,000 00
Cash & Current Assets	119 42	Current Liabilities	64,369 46
Profit and Loss	4,065 25		
Total	\$114,369 46	Total	\$114,369 46

CASH STATEMENT OF FINANCIAL OPERATIONS FOR THE YEAR.

Resources to Account For.	Item.	Total.
Net Income :		
From Operation	\$8,525 29	
Total		\$8,525 29
Grand Total		\$8,525 29
Resources Accounted For.	Item.	Total.
Fixed Charges :		
Other Interest Paid	\$3,359 10	
Rentals	4,032 50	
Taxes	139 12	
Total		\$7,530 72
Other Permanent Improvements*	\$ 817 19	
Total		\$ 817 19
Decrease in Liabilities :		
Decrease in Current Liabilities	\$ 177 38	
Total		\$ 177 38
Grand Total		\$8,525 29

* Not charged to operating Expenses.

CONTRACTS, AGREEMENTS, ETC.

Contract with United States Post-office Department, March 1st, 1886, establishing Mail Route No. 2,001, between Hoosac Tunnel, Mass., and Readsboro, Vt., compensation fixed from July 1st, 1889, to June 30th, 1893, at \$491.62 per annum.

Contract with Western Union Telegraph Company, October 14th, 1885, by which the Railroad Company furnishes the poles and right of way and the Telegraph Company the wire and instruments for operation and has the use of the line.

EMPLOYES AND SALARIES.

Class.	Num-ber.	Total Yearly Compensation.	Average Daily Compensation.
General Officers.....	2	\$1,000 00	\$1 66½
General Office Clerks.....			
Station Agents.....	1	540 00	1 80
Other Station Men.....	3	1,611 51	1 78
Enginemen.....	1	607 65	2 02
Firemen.....	1	333 91	1 11
Conductors.....	1	267 30	89
Total.....	9	\$4,360 37	\$9 26½ (9)
Distribution of Above:			\$1.03
General Administration.....	2	\$1,000 00	•
Conducting Transportation.....	7	3,360 37	
Total.....	9	\$4,360 37	

PASSENGER, FREIGHT AND TRAIN MILEAGE.

Item.	Column for Ton- nage, Number Passengers, Number Trains, Mileage, Number Cars.	COLUMN FOR REVENUE AND RATES.		
		Dolls.	Cts.	Mills.
Passenger Traffic:				
Number of passengers carried earning revenue.....	9,506			
Number of passengers carried one mile.....	88,996			
Average distance carried.....	9.362			
Total passenger revenue.....		3,852	27	
Average amount received from each passenger.....			40	524
Average receipts per passenger per mile.....			04	328

PASSENGER, FREIGHT, AND TRAIN MILEAGE.—Continued

Item.	Column for Ton- nage, Number Passengers, Number Trains, Mileage, Number Cars.	COLUMN FOR REVENUE AND RATES.		
		Dolls.	Cts. Mills.	
Estimated cost of carrying each passenger one mile.....			02	785
Passenger Earnings per mile of road.....		350	11	
Passenger and Freight :				
Passenger and Freight earnings.....		17,753	08	
Passenger and Freight earnings per mile of road.....		1,613	92	
Expense per mile of road.....		899	59	
Total earnings per mile of road, including Mails, Express, etc.....		1,674	62	
Train Mileage :				
Miles run by mixed trains.....	14,300			
Total Mileage Trains Earning Revenue.....	14,300			

DESCRIPTION OF EQUIPMENT.

Item.	Total Number at End of Year.
Locomotives :	
Passenger.....	2
Total.....	2
Cars in Passenger Service :	
Combination Passenger Cars.....	4
Total.....	4
Cars in Freight Service :	
Box and Flat Cars.....	29
Total.....	29
Cars Leased.....	33
Grand Total.....	35

MILEAGE.

Line in Use.	Main Line Owned.	Line Operated Under Lease.	Total Mileage Operated.	Steel Rails.
Miles of Single Track.....	8	3	11	11
Total Mileage Operated (all tracks).....	8	3	11	11

MILEAGE OF LINE BY STATES AND TERRITORIES.

State or Territory.	Main Line Owned.	Line Operated Under Lease.	Total Mileage, Excluding Trackage Rights.	Steel Rails.
Massachusetts.....	8		8	8
Vermont.....		3	3	3
Total Mileage Operated (single track).....	8	3	11	11

MILEAGE OWNED BY ROAD MAKING THIS REPORT.

	Main Line Owned.	Steel Rails.
	8	8
Total Mileage Owned (single track).....	8	8

RENEWALS OF RAILS AND TIES.

NEW TIES LAID DURING YEAR.

Kind.	Number.	Average Price at Distributing Point.
Hemlock	6,543	15
Total	6,543	15

CONSUMPTION OF FUEL BY LOCOMOTIVES.

Locomotives.	COAL—TONS.	Total Fuel Consumed—Tons.	Miles Run.	Average Pounds Consumed Per Mile.
	Bituminous.			
Passenger.....	308 $\frac{3000}{240}$	308 $\frac{3000}{240}$	14,300	48.36
Total.....	308 $\frac{3000}{240}$	308 $\frac{3000}{240}$	14,300	48.36

ACCIDENTS TO PERSONS.

One injured.

CHARACTERISTICS OF ROAD.

Gauge of Track : 3 feet.

STATE OF MASSACHUSETTS, } ss :
County of Hampden. }

We, the undersigned, Daniel H. Newton, President, and John C. Newton, Treasurer, of the Hoosac Tunnel and Wilmington Railroad Company, on our oath do severally say that the foregoing return has been prepared, under our direction, from the original books, papers, and records of said Company; that we have carefully examined the same, and declare the same to be a complete and correct statement of the business and affairs of said Company in respect to each and every matter and thing therein set forth, to the best of our knowledge, information, and belief; and we further say that no deductions were made before stating the gross earnings or receipts herein set forth, except those shown in the foregoing accounts; and that the accounts and figures contained in the foregoing return embrace all of the financial operations of said Company during the period for which said return is made.

DANIEL H. NEWTON, *President*.

JOHN C. NEWTON, *Treasurer*.

Subscribed and Sworn to before me,
this 14th day of August, 1890.

FRED F. PARTRIDGE,
Notary Public.

ANNUAL REPORT
OF THE
LEBANON SPRINGS RAILROAD COMPANY,
FOR THE YEAR ENDING JUNE 30, 1890.

HISTORY.

Name of common carrier making this report: Lebanon Springs Railroad Company.

Date of organization: March 28, 1852.

Organized under the Laws of the State of New York and State of Vermont.

Lebanon Springs Railroad chartered as above, under General Law and by Special Acts of the State of New York, covering a period of several years.

New York and Vermont Railway Company, under an Act of the Legislature of the State of Vermont, approved November 2, 1865 and being No. 134 of the Laws of that year, and several Acts supplementary thereto and amendatory thereof.

The Lebanon Springs Railroad and the New York and Vermont Railway Company were consolidated the 20th day of August, 1867.

Consolidated by Acts of the Legislatures of the States of New York and Vermont.

Law of New York passed February 26, 1867.

Law of Vermont, March 28, 1867.

Company is in process of re-organization.

ORGANIZATION.

The Receiver is unable to find the records of the Company.

Post-office address of general office: Bennington, Vermont.

Post-office address of operating office: Bennington, Vermont.

OFFICERS.

Receiver—Wm. V. Reynolds, Bennington, Vermont.

General Passenger Agent—Joseph Childs, Bennington, Vermont.

General Freight Agent—Joseph Childs, Bennington, Vermont.

General Superintendent—E. D. Bennett, Bennington, Vermont.

PROPERTY OPERATED.

Name.	TERMINALS.		Miles of Line for Each Road Named.
	From	To	
Lebanon Springs Railroad	Chatham, N. Y.	Bennington, Vt.	57.10
Total Mileage Operated.			57.10

CAPITAL STOCK.

Description.	Par Value of Shares.	Total Par Value Authorized.	Total Amount Issued and Outstanding.
Capital Stock : Common.	\$100 00	\$2,000,000	\$2,000,000
Total	\$100 00	\$2,000,000	\$2,000,000

FUNDED DEBT.

Class of Bond or Obligation.	TIME.	Amount of Authorized Issue.	Amount Out-standing.	INTEREST.	
	Date of Issue.			Rate.	When Payable.
First Mortgage	July 1, 1887.	\$2,000,000	\$2,000,000	7 %	Jan. and July.

Total amount issued. \$2,000,000.

CURRENT ASSETS AND LIABILITIES.

Cash and Current Assets Available for Payment of Current Liabilities.		Current Liabilities Accrued to and Including June 30, 1890.	
		Audited Vouchers and Accounts	
Cash.....	\$4,872 55	Wages and Salaries.....	\$1,789 60
Bills Receivable, United States Post-office Department.....	899 16	Net Traffic Balances due to other Companies.....	3,915 09
Due from Agents.....	1,890 31	Balance—Cash Assets.....	640 52
Net Traffic Balances due from other Companies.....	776 50		
Due from Solvent Companies and Individuals.....	600 89		
Other Cash Assets*.....	2,703 96		
Total.....	\$11,743 37	Total.....	\$11,743 37

*Materials and Supplies on hand, \$2,703 96.

PERMANENT IMPROVEMENTS FOR THE YEAR.

Item.	EXPENDITURES DURING THE YEAR.		Differences or Net Additions to Property Etc.
	Included in Operating Expenses.	Total Expenditures.	
Construction :			
Fences.....	\$1,165 82	\$1,165 82	\$1,165 82
Bridges and Trestles.....	1,462 62	1,462 62	1,462 62
Ties.....	1,591 54	1,591 54	1,591 54
Buildings, Furniture and Fixtures.....	398 98	398 98	398 98
Telegraph Line.....	264 93	264 93	264 93
Total Construction.....	\$4,883 89	\$4,883 89	\$4,883 89
Grand Total Construction and Equipment.....	\$4,883 89	\$4,883 89	\$4,883 89

COST OF ROAD AND EQUIPMENT.

Item.	Net Additions During Year.
Construction :	
Fences	\$1,165 82
Bridges and Trestles	1,462 62
Ties	1,591 54
Buildings, Furniture and Fixtures	398 98
Telegraph Line	264 93
Total Construction	\$4,883 89
Grand Total Construction and Equipment	\$4,883 89

INCOME ACCOUNT.

Gross Earnings from Operation	\$61,888 96	
Less Operating Expenses	64,456 49	
Deficit	\$2,567 53	
Miscellaneous Income—less Expenses	6,011 20	
Income from Other Sources		\$6,011 20
Total Income		\$3,443 67
Deductions from Income :		
Rentals, including Tracks, Yards and Terminals	\$190 00	
Taxes	380 14	
Total Deductions from Income		\$570 14
Net Income		\$2,873 53
Surplus from Operations of Year ending June 30, 1890		\$2,873 53
Surplus on June 30, 1889		2,524 66
Surplus on June 30, 1890		\$5,398 19

EARNINGS FROM OPERATION.

Item.	Total Receipts.	Deductions Account of Repayments, Etc.	Actual Earnings.
Passenger :			
Passenger Revenue.....	<u>\$19,470 11</u>		
Total Passenger Revenue.			<u>\$19,470 11</u>
Mail \$3,596.64 per annum			
Less \$80 for carriage..			3,516 64
Express			<u>900 00</u>
Total Passenger Earnings.			<u>\$23,886 75</u>
Freight :			
Freight Revenue.....	<u>\$37,433 99</u>		
Overcharge to Shippers.		<u>\$63 05</u>	
Total Deductions...		<u>\$63 05</u>	
Total Freight Revenue.			<u>\$37,370 94</u>
Total Passenger and Freight Earnings...			<u>\$61,257 69</u>
Other Earnings from Operation :			
Switching charges—Balance.....		<u>\$619 00</u>	
Rentals not otherwise provided for....		12 27	
Total Other Earnings ..			<u>\$631 27</u>
Total Gross Earnings from Operation			<u>\$61,888 96</u>

MISCELLANEOUS INCOME.

Item.	Gross Income.	Net Miscellaneous Income.
Sale of Old Material.....	<u>\$6,011 20</u>	<u>\$6,011 20</u>
Total	<u>\$6,011 20</u>	<u>\$6,011 20</u>

OPERATING EXPENSES.

Item.	Chargeable to Passenger Traffic.	Chargeable to Freight Traffic.	Total.
Maintenance of Way and Structures :			
Repairs of Roadway.....	\$ 4,006 17	\$12,018 51	\$16,024 68
Renewals of Ties.....	310 00	1,281 54	1,591 54
Repairs of Bridges and Culverts.....	365 06	1,006 96	1,462 62
Repairs of Fences, Road-crossings, Signs, and Cattle-guards.....	191 45	974 37	1,165 82
Repairs of Buildings.....	99 77	290 21	398 98
Repairs of Telegraph.....	66 24	198 69	264 93
Total.....	\$ 5,039 29	\$15,869 28	\$20,908 57
Maintenance of Equipment :			
Repairs and Renewals of Locomotives.....	\$ 633 47	\$ 1,902 42	\$ 2,535 89
Repairs and Renewals of Passenger and Freight Cars.....	622 29	1,866 87	2,489 16
Shop Machinery, Tools, etc.....	14 92	44 75	59 67
Total.....	\$ 1,270 68	\$ 3,814 04	\$ 5,084 72
Conducting Transportation :			
Wages of Enginemen, Firemen, and Round-housemen.....	\$ 1,244 05	\$ 3,732 15	\$ 4,976 20
Fuel for Locomotives.....	1,907 92	5,723 75	7,631 67
Water-supply for Locomotives.....	46 39	138 97	185 36
All other Supplies for Locomotives.....	165 27	495 79	661 06
Wages of other Trainmen.....	1,399 28	4,197 83	5,597 11
All other Train Supplies.....	68 76	206 28	275 04
Wages of Switchmen, Flagmen, and Watchmen.....	773 35	2,320 06	3,093 41
Wages of Station Agents, Clerks, and Laborers.....	1,335 00	4,005 00	5,340 00
Station Supplies.....	64 26	192 78	257 04
Car Mileage—Balance.....	470 99	1,412 97	1,883 96
Loss and Damage.....	15 70	47 06	62 74
Injuries to Persons.....	6 00		6 00
Other Expenses, Hire of Engines.....	803 80	2,411 20	3,215 00
Total.....	\$ 8,300 77	\$24,883 82	\$33,184 59

OPERATING EXPENSES.—Continued.

Item.	Chargeable to Passenger Traffic.	Chargeable to Freight Traffic.	Total.
General Expenses :			
Salaries of Officers.....	\$ 600 00	\$ 1,800 00	\$ 2,400 00
Salaries of Clerks.....	423 25	1,269 75	1,693 00
General Office Expenses and Supplies.....	67 90	203 72	271 62
Advertising.....	10 90	32 68	43 58
Rentals not otherwise pro- vided for, General Office.	49 98	149 94	199 92
Legal Expenses.....	9 06	27 19	36 25
Stationery and Printing...	95 83	287 50	383 33
Other General Expenses...	62 73	188 18	250 91
Total.....	\$ 1,319 65	\$ 3,958 96	\$ 5,278 61
Recapitulation of Expenses :			
Maintenance of Way and Structures.....	\$ 5,039 19	\$15,869 28	\$20,908 57
Maintenance of Equipment	1,270 68	3,814 04	5,084 72
Conducting Transportation.	8,300 77	24,883 82	33,184 59
General Expenses.....	1,319 65	3,958 96	5,278 61
Grand Total.....	\$15,930 59	\$48,526 10	\$64,456 49
Percentage of Operating Ex- penses to Earnings.....	103.809%		

RENTS PAID FOR LEASE OF OTHER PROPERTY.

Designation of Property.	Situation of Property Leased.	Name of Company Owning Property Leased.	Item.	Total.
Terminals :				
"	Chatham, N. Y.	Mrs. I. L. Best .. .	\$ 40 00	
"	Bennington, Vt.	Est. Moses Robinson	30 00	
Station House.	Petersburgh Jc.	Fitchburg Railroad .	120 00	
Total Rental-				\$190 00
Grand Total				
Rentals Paid				\$190 00

GENERAL BALANCE SHEET.

Cash and Current Assets..	\$ 9,039 11	Current Liabilities..	\$ 6,345 21
Materials and Supplies....	2,703 99	Profit and Loss.....	5,398 19
Total	\$11,743 40	Total.	\$11,743 40

CASH STATEMENT OF FINANCIAL OPERATIONS FOR THE YEAR.

Resources to Account For.	Item.	Total.
Net Income :		
From Other Sources than Operation	\$6,011 20	
Less Deficit in Operation.....	2,567 53	
Total.....		\$3,443 67
Grand Total.....		\$3,443 67
Resources Accounted For.	Item.	Total.
Fixed Charges :		
Rentals	\$ 190 00	
Taxes	380 14	
Total.....		\$ 570 14
Miscellaneous :		
To Profit and Loss.....	\$2,873 53	
Total.....		\$2,873 53
Grand Total.....		\$3,443 67

CONTRACTS, AGREEMENTS, ETC.

National Express Company :

Carry Express matter for the sum of \$900.00 per annum.
 United States Post-office Department :

Carry United States Mail from Chatham to Bennington for the sum of \$3,596 $\frac{64}{100}$ per annum.

EMPLOYES AND SALARIES.

Class.	Number.	Total Yearly Compensa- tion.	Average Daily Compensa- tion.
General Officers :			
Superintendent.....	1	\$ 1,200 00	
General Freight and Passenger Agent.....	1	1,200 00	
Master Mechanic.....	1	1,200 00	
Roadmaster.....	1	960 00	
General Office Clerks :			
Bookkeeper,.....	1	900 00	\$2 50
Time-keeper.....	1	480 00	1 60
Clerk.....	1	313 00	1 00
Station Agents (2 without pay).....	13	4,980 00	1 33
Other Station Men.....	2	120 00	33 $\frac{1}{2}$
Enginemen.....	4	3,100 00	2 58
Firemen.....	3	1,620 00	1 50
Conductors.....	3	2,340 00	2 16 $\frac{1}{2}$
Other Trainmen.....	7	3,186 00	1 26
Machinists.....	4	3,000 00	2 03 $\frac{1}{2}$
Carpenters.....	4	2,520 00	1 75
Section Foremen.....	11	5,280 00	1 35
Other Trackmen.....	33	11,361 91	1 10
Switchmen, Flagmen and Watch- men.....	8	2,966 00	1 11
Telegraph Operators and Dispatch- ers.....	1	240 00	80
Total.....	100	\$46,966 90	
Distribution of Above :			
General Administration.....	7	\$ 6,253 00	
Maintenance of Way and Struc- tures.....	44	16,441 90	
Maintenance of Equipment.....	8	5,520 00	
Conducting Transportation.....	41	18,552 00	
Total.....	100	\$46,966 90	

PASSENGER, FREIGHT, AND TRAIN MILEAGE.

Item.	Column for Tonnage, Num- ber Passengers, Number Trains, Mileage, Number Cars.	COLUMN FOR REV- ENUE AND RATES.		
		Dollars.	Cts.	Mills.
Passenger Traffic :				
Number of passengers carried earning revenue.....	62,075			
Number of passengers carried one mile.....	648,994			
Average distance carried...	10 ⁴⁵⁵ / ₁₀₀₀	19,470	11	
Total passenger revenue.....				
Average amount received from each passenger.....			31	366
Average receipts per passen- ger per mile.....			03	
Estimated cost of carrying each passenger one mile.....			02	506
Passenger earnings per mile of road.....		340	97	321
Passenger earnings per train- mile.....			72	755
Freight Traffic :				
Number of tons carried of freight earning revenue...	45,779			
Number of tons carried one mile.....	1,555,310			
Average distance haul of one ton.....	34			
Total freight revenue.....		37,390	94	
Average amount received for each ton of freight.....			81	655
Average receipts per ton per mile.....			02	400
Estimated cost of carrying one ton one mile.....			03	120
Freight earnings per mile of road.....		654	48	213
Freight earnings per train- mile.....			46	548

PASSENGER, FREIGHT, AND TRAIN MILEAGE.—Continued.

Item.	Column for Tonnage, Num- ber Passengers, Number Trains, Mileage, Number Cars.	COLUMN FOR REV- ENUE AND RATES.		
		Dollars.	Cts.	Mills.
Passenger and Freight :				
Passenger and freight earn- ings		56,841	05	
Passenger and freight earn- ings per mile of road.....		995	45	534
Expenses per mile of road.....		1,128	83	500
Total earnings per mile of road, including Mails, Ex- press, etc.....		1,083	87	
Number of mixed trains.....	6			
Train Mileage :				
Miles run by mixed trains...	107,046			
Miles run by construction and other trains.....	17,592			
Grand Total Train Mile- age	124,638			
Mileage of loaded freight cars—North or East.....	53,812			
Mileage of loaded freight cars—South or West.....	94,151			
Mileage of empty freight cars—North or East.....	102,713			
Mileage of empty freight cars—South or West.....	10,962			
Average number of freight cars in train.....	14			
Average number of loaded cars in train.....	8			
Average number of empty cars in train.....	6			
Average number of tons of freight in train.....	73 ¹³ ₁₀₀			
Average number of tons of freight in each loaded car	9 ¹⁴ ₁₀₀			

FREIGHT TRAFFIC MOVEMENT.

Commodity.	Freight Originat- ing on this Road.	Freight Received from Con- necting Roads and Other Carriers.	TOTAL FREIGHT TONNAGE.	
	Whole Tons.	Whole Tons.	Whole Tons.	Per Cent.
Products of Agriculture :				
Grain		4,638	4,638	10.12
Flour		560	560	1.23
Other Agricult'l Products.....	2,270		2,270	4.94
Products of Animals :				
Live Stock		233	233	.
Dressed Meats.....		494	494	1.07
Products of Mines :				
Anthracite Coal.....	11,968			
Bituminous Coal.....			11,968	26.33
Products of Forest :				
Lumber and Charcoal.....		11,390	11,390	24.90
Manufactures :				
Petroleum and other Oils.....		157	157	.30
Iron, Pig and Bloom.....	2,533		2,533	5.53
Merchandise	5,578		5,578	12.04
Miscellaneous : Other com- modities not mentioned above.....	5,958		5,958	13.01
Total Tonnage.....	16,337	29,440	45,779	100.00

DESCRIPTION OF EQUIPMENT.

Item.	Number Added During Year.	Total Number at End of Year.	EQUIPPED WITH TRAIN BRAKE.		CARS FITTED WITH AUTOMATIC COUPLER.	
			No.	Kind.	No.	Kind.
Locomotives :						
Passenger	1	4	2	Air.		
Freight		1				
Switching						
Total		5				
Cars in Passenger Service :						
First-class Pas- senger Cars		3	3	Air.	3	Miller.
Combination Passeng'r Cars		2	2	"	2	"
Baggage, Ex- press, and Postal Cars		2	2	"	2	"
Total		7	7		7	
Cars in Freight Service :						
Box Cars		11				
Total		11				
Total Owned		18				
Grand Total		18				

MILEAGE.

Line in Use.	Main Line Owned.	Total Mileage Operated.	RAILS.	
			Iron.	Steel.
Miles of Single Track.	57.10	57.10	30.10	27.00
Miles of Yard Track, Sidings, and Spurs.	3.95	3.95		
Total Mileage Operated (all tracks).....	60.05	60.05	30.10	27.00

MILEAGE OF LINE BY STATES AND TERRITORIES.

State or Territory.	Main Line Owned.	Total Mileage, Excluding Trackage Rights.	RAILS.	
			Iron.	Steel.
New York.....	51.18	51.18	24.18	27.00
Vermont.....	5.92	5.92	5.92	
Total Mileage Operated (single track)	57.10	57.10	30.10	27.00

MILEAGE OWNED BY ROAD MAKING THIS REPORT.

New York.....	51.18	51.18	24.18	27.00
Vermont.....	5.92	5.92	5.92	
Total Mileage Owned (single track).....	57.10	57.10	30.10	27.00

CONSUMPTION OF FUEL BY LOCOMOTIVES.

Locomotives.	COAL—TONS.	Total Fuel Consumed —Tons.	Miles Run.	Average Pounds Consumed Per Mile.
	Bituminous.			
Freight.....	2,518.20	2,518.20	124,638	43.46
Total	2,518.20	2,518.00	124,638	43.46
Average Cost at Distributing point	\$3 25	\$3 25		

ACCIDENTS TO PERSONS.

Intoxicated on track in State of New York—Trespassers.....	2
Total.....	2

CHARACTERISTICS OF ROAD.

WORKING DIVISIONS OR BRANCHES.

From	To	Miles.
Chatham, N. Y.....	Bennington, Vt.....	57.10

PROFILE.

ASCENDING GRADES.			DESCENDING GRADES.		
Number.	Sum of Ascents. Feet.	Aggregate Length of Ascending Grades. Miles.	Number.	Sum of Descents. Feet.	Aggregate Length of Descending Grades. Miles.
8	1,902.1	30.75	7	1,172	26.35

CHARACTERISTICS OF ROAD.—Continued.

Bridges :

Number Iron.....	5
Number Wooden.....	28

Trestles :

Number.....	7
Aggregate length.....	1,172 feet.

Gauge of Track.....4 feet 8½ inches.

Telegraph :

Owned by this Company.....	57.10 miles of line.
Owned by this Company.....	57.10 miles of wire.
Operated by Western Union Telegraph Company, 57.10 miles of line.	
Operated by Western Union Telegraph Company, 57.10 miles of wire.	

This Road pays rentals for Terminal Facilities, as follows :

Chatham, N. Y.—Ground on which Station is built. Leased of Mrs. I. L. Best.

Bennington, Vt.—Ground on which Engine House is built. Leased from Estate of Moses Robinson, deceased.

Petersburgh Junction, N. Y.—The Fitchburg R. R. Co. for joint use of Station.

This report is made in full for the total operations of the Lebanon Springs Railroad, including all receipts and expenditures in the States of Vermont and New York.

From a careful computation made by the Officers under me of such receipts and expenditures, the per centage of gross receipts and disbursements on business originating and arising in the State of Vermont, is about four per cent. of such gross receipts, and the same of gross expenses.

STATE OF VERMONT, }
County of Bennington, } ss :

I, the undersigned, Wm. V. Reynolds, Receiver of the Lebanon Springs R. R., on my oath do say that the foregoing return has been prepared, under my direction, from the original books, papers, and records of said Railroad : that I have carefully examined the same, and declare the same to be a complete and correct statement of the business and affairs of said Railroad in respect to each and every matter and thing therein set forth, to the best of my knowledge, information, and belief ; and I further say that no deductions were made before stating the gross earnings or receipts herein set forth, except those shown in the foregoing accounts ; and that the accounts and figures contained in the foregoing return embrace all of the financial operations of said Company during the period for which said return is made.

WM. V. REYNOLDS, *Receiver.*

Subscribed and sworn to before me, }
this 14th day of August, 1890. }

J. T. SHURTLEFF, *Notary Public.*

ANNUAL REPORT OF THE MONTPELIER AND WELLS RIVER RAILROAD.

FOR THE YEAR ENDING MARCH 31, 1890.

HISTORY.

Name of common carrier making this report: Montpelier and Wells River Railroad.

Date of organization: Jan. 1st, 1877. Date of charter, Nov. 6th, 1867.

Organized under the laws of the State of Vermont.

Name of original corporation: Montpelier and Wells River Railroad Company.

Reorganized under General Laws of Vermont.

ORGANIZATION.

Names of Directors.	Post-office Address.	Date of Expiration of Term.
D. R. Sortwell	East Cambridge, Mass.	Last Thursday in May, 1891.
A. F. Sortwell	East Cambridge, Mass.	
W. H. H. Bingham ..	Stowe, Vt.	
S. C. Shurtleff	Montpelier, Vt.	
Joel Foster	Montpelier, Vt.	

Total number of stockholders at date of last election: 37.

Date of last meeting of stockholders for election of directors: Last Thursday in May, 1890.

Post-office address of general office: Montpelier, Vt.

Post-office address of operating office: Montpelier, Vt.

OFFICERS.

President—D. R. Sortwell, Montpelier, Vt.

Vice-President—A. F. Sortwell, Montpelier, Vt.

Treasurer—Joel Foster, Montpelier, Vt.

Cashier—F. W. Morse, Montpelier, Vt.

Chief Engineer—Asa Howe, Northfield, Vt.

General Solicitor, Attorney, or Counsel—S. C. Shurtleff, Montpelier, Vt.

Auditor—F. W. Morse, Montpelier, Vt.

General Passenger Agent—F. W. Morse, Montpelier, Vt.

General Ticket Agent—F. W. Morse, Montpelier, Vt.

General Superintendent—W. A. Stowell, Montpelier, Vt.

General Baggage Agent,—F. W. Morse, Montpelier, Vt.

PROPERTY OPERATED.

Name.	TERMINALS.		Miles of Line for Each Road Named.
	From	To	
Montpelier and Wells River Barre Branch Railroad.....	Montpelier Barre Junct.	Wells River Barre	38. ²⁰ ₁₀₀ 3. ⁸⁰ ₁₀₀
Total.....			42

PROPERTY LEASED, OR OTHERWISE ASSIGNED FOR OPERATION.

Name.	TERMINALS.		By What Company Operated.	Under What Kind of Contract Operated.	Miles of Line.
	From	To			
Barre Branch R. R.....	Barre Jc.	Barre.	Montpelier and Wells River R.R.	Lease	3. ⁸⁰ ₁₀₀

Barre Branch Railroad, extending from Barre Junction to Barre, 3 8-10 miles. Leased to the Montpelier and Wells River Railroad. The capital stock of Barre Branch Railroad is \$80,000. The Montpelier and Wells River Railroad agreeing to pay 6 per cent per annum on the stock of Barre Branch Railroad.

The Barre Branch Railroad has no rolling stock of any kind of its own. Lease commenced June 1st, 1889.

Stock all owned by D. R. Sortwell, President, Montpelier and Wells River Railroad.

CAPITAL STOCK.

Description.	Par Value of Shares.	Total Par Value Authorized.	Total Amount Issued and Outstanding.
Capital Stock : Common.....	\$50 00	\$800,000 00	\$800,000 00
Manner of Payment for Capital Stock.		Number of Shares.	Total Cash Realized.
Issued for Cash : Common.....		16,000	\$800,000 00

CAPITAL STOCK.—Continued.

Particulars and Explanations.

Original bonds issued by the Montpelier and Wells River Railroad Company, \$800,000, converted into stock when Company was reorganized, June 1st, 1877. Original capital stock was \$400,000 in Stock \$800,000 in Bonds. Interest was defaulted for several years when the holders of the bonds foreclosed and took the road, making face of bonds the capital stock.

CURRENT ASSETS AND LIABILITIES.

Cash and Current Assets Available for Payment of Current Liabilities.

Cash.....	\$ 7,716 50
Due from Agents.....	2,405 97
Balance—Current Liabilities.....	152 77
Total	\$10,275 24

Current Liabilities Accrued to and Including March 31, 1890.

Loans and Bills Payable.....	\$ 5,000 00
Net Traffic Balances due to other Companies	5,275 24
Total	\$10,275 24

RECAPITULATION.

Account.	Total Amount Outstanding.
Capital Stock.....	\$800,000 00
Total.....	\$800,000 00

No Construction or Equipment Account. All is charged in Operating Expenses.

INCOME ACCOUNT.

Gross Earnings from Operation.....	\$112,304 61
Less Operating Expenses, including Taxes,	105,132 54
Income from Operation.....	\$ 7,172 07
Total Income.....	\$ 7,172 07

Deductions from Income :

Taxes, included in General Expense,	
\$2,173.87	
Other Deductions, Gross Expense Barre	
Railroad.....	\$ 23,952 13
Gross Expense Barre Branch Railroad....	1,422 87
Total Deductions from Income.....	\$25,375 00
Deficit.....	\$18,202 93
Deficit from Operations of Year ending	
March 31, 1890	\$18,202 93
Surplus on March 31, 1889.....	28,037 48
Surplus on March 30, 1890.....	\$ 9,834 55

EARNINGS FROM OPERATION.

Item.	Total Receipts.	Actual Earnings.
Passenger :		
Passenger Revenue.....	842,474 39	
Total Passenger Revenue.....		842,474 39
Mail		2,849 37
Express.....		1,800 00
Total Passenger Earnings.....		847,123 76
Total Freight Revenue.....		863,548 14
Total Freight Earnings.....		863,548 14
Total Passenger and Freight Earnings.....		\$110,671 90
Total Other Earnings.....		\$1,632 71
Total Gross Earnings from Operation.....		\$112,304 61

OPERATING EXPENSES.

Item.	Total.
Maintenance of Way and Structures :	\$23,556 44
Renewals of Rails.....	4,078 59
Renewals of Ties.....	8,821 76
Repairs of Bridges and Culverts.....	4,233 61

OPERATING EXPENSES.—Continued.

Item.	Total.
Repairs of Fences, Road-crossings, Signs and Cattle-guards.....	\$ 1,111 16
Repairs of Buildings.....	1,453 86
Other Expenses.....	213 85
Total.....	\$ 43,469 27
Maintenance of Equipment :	
Repairs and Renewals of Locomotives.....	\$ 5,393 31
Repairs and Renewals of Passenger Cars.....	3,939 01
Repairs and Renewals of Freight Cars.....	3,751 51
Shop Machinery, Tools, etc.....	462 48
Other Expenses.....	44 95
Total.....	\$ 13,591 26
Conducting Transportation :	
Fuel for Locomotives.....	\$ 18,669 54
Water-supply for Locomotives.....	1 56
All other Supplies for Locomotives, Oil and Waste.....	1,482 07
Wages of all Trainmen.....	12,250 17
Wages of Switchmen, Flagmen, and Watchmen.....	57 90
Wages of Station Agents, Clerks, and Laborers.....	4,702 53
Station Supplies.....	111 00
Switching Charges—Balance.....	146 10
Car Mileage—Balance.....	711 79
Loss and Damage.....	232 44
Other Expenses.....	496 40
Total.....	\$ 38,861 30
General Expenses :	
Salaries of Officers.....	\$ 3,600 00
Salaries of Clerks.....	1,426 12
Advertising.....	45 00
Insurance.....	32 99
Legal Expenses.....	515 78
Stationery and Printing.....	832 72
Other General Expenses.....	584 23
Taxes Paid.....	2,173 87
Total.....	\$ 9,210 71
Recapitulation of Expenses :	
Maintenance of Way and Structures.....	\$ 43,469 27
Maintenance of Equipment.....	13,591 26
Conducting Transportation.....	38,861 30
General Expenses.....	9,210 71
Grand Total.....	\$105,132 54

GENERAL BALANCE SHEET.

Cost of Road.....	\$800,000 00	Capital Stock.....	\$800,000 00
Cash & Current Assets.....	10,122 47	Current Liabilities.....	10,275 24
Profit and Loss.....	152 77		
Total.....	\$810,275 24	Total.....	\$810,275 24

CASH STATEMENT OF FINANCIAL OPERATIONS FOR THE YEAR.

Resources to Account For.	Item.	Total.
Net Income.....	\$ 7,172 07	
Total.....		\$ 7,172 07
Increase in Current Liabilities.....	\$11,000 00	
Total.....		\$11,000 00
Decrease in Assets:		
Cash on hand.....	\$ 3,842 61	
Total.....		\$ 3,842 61
All other sources.....		5,275 24
Grand Total.....		\$27,289 92
Resources Accounted For.	Item.	Total.
Other Charges Against Net Income.....		\$25,375 00
Increase in Assets:		
Cash Assets.....	\$ 1,914 92	
Total.....		\$ 1,914 92
Grand Total.....		\$27,289 92

IMPORTANT CHANGES DURING THE YEAR.

We have furnished material and money for construction of Barre Railroad and Barre Branch which is entered as Gross Expense. As yet there has been no other disposition made of these charges.

CONTRACTS, AGREEMENTS, ETC.

American Express, \$150 per month. United States Mail, \$2,849.37 per year. Western Union Telegraph Company own the wires, poles and instruments. Our agents do operating for them free of charge in consideration of which we are granted free use of wires and instruments for train service and other railroad business.

EMPLOYES AND SALARIES.

Class.	Number.	Total Yearly Compensa- tion.	Average Daily Compensa- tion.
General Officers.....	3	\$ 4,500 00	
General Office Clerks.....	2	1,320 00	\$2 11
Station Agents.....	9	3,690 00	1 01
Other Station Men.....	3	1,326 00	1 42
Enginemen.....	5	4,135 75	2 29
Firemen.....	6	2,862 00	1 32
Conductors.....	3	2,430 00	2 25
Other Trainmen.....	9	4,050 77	1 25
Carpenters.....	2	1,170 00	1 87½
Other Shopmen.....	2	1,156 00	1 62½
Section Foremen.....	9	4,212 00	1 50
Other Trackmen.....	27	10,108 80	1 20
Switchmen, Flagmen, and Watch- men.....	3	1,260 00	1 34
Total.....	83	\$42,220 55	
Distribution of above :			
General Administration.....	3	\$ 4,500 00	\$4 47½
Maintenance of Way and Struc- tures.....	36	14,320 80	1 27½
Maintenance of Equipment.....	4	2,326 00	1 75
Conducting Transportation.....	40	21,073 75	1 61
Total.....		\$42,220 55	

PASSENGER, FREIGHT AND TRAIN MILEAGE.

Item.	Column for Ton- nage, Number Passengers, Number Trains, Mileage, Number Cars.	COLUMN FOR REVE- NUE AND RATES.		
		Dollars.	Cts.	Mills.
Passenger Traffic :				
Number of passengers car- ried earning revenue....	74,516			
Number of passengers car- ried one mile.....	1,229,514			
Average distance carried....	16½			
Total passenger revenue.....		42,474	39	
Average amount received from each passenger.....			57	
Average receipts per passen- ger per mile.....			63	454
Freight Traffic :				
Number of tons carried of freight earning revenue....	64,718			
Number of tons carried one mile.....	2,006,258			
Average distance haul of one ton.....	31+			
Total freight revenue.....		63,548	14	
Average amount received for each ton of freight.....			98	1
Average receipts per ton per mile.....			63	½
Passenger and Freight :				
Passenger and freight earn- ings.....		106,022	53	
Passenger and freight earn- ings per mile of road.....		2,524	34	
Expense per mile of road.....		2,503	15	
Total earnings per mile of road, including Mails, Ex- press, etc.....		2,673	92	
Number of passenger trains.....	1,248			
Number of freight trains.....				
Number of mixed trains... }	624			
Train mileage :				
Miles run by passenger trains.....	47,674			
Miles run by mixed trains....	23,838			
Total Mileage Trains Earning Revenue.....	71,512			

DESCRIPTION OF EQUIPMENT.

Item.	Total Number at End of Year.	EQUIPPED WITH TRAIN BRAKE.	CARS FITTED WITH AUTOMATIC COUPLER.
		Kind.	Kind.
Locomotives used for all Purposes	4	Westinghouse.	Miller.
Cars in Passenger Service :			
First-class Passenger Cars	4		
Combination Passen- ger Cars	1		
Baggage, Express and Postal Cars	2		
Total	7		
Cars in Freight Service :			
Box Cars	38		
Flat Cars	63		
Stock Cars	6		
Coal Cars	4		
Refrigerator Cars	2		
Total	113		
Cars in Company's Ser- vice :			
Derrick Cars	1		
Caboose Cars	1		
Total	2		

CHARACTERISTICS OF ROAD.

WORKING DIVISIONS OR BRANCHES.			ALIGNMENT.			PROFILE.			
			Number of Curves.	Aggregate Length of Curved Line. Miles.	Length of Straight Line. Miles.	ASCENDING GRADES.		DESCENDING GRADES.	
From	To	Miles.				Sum of Ascents. Ft.	Aggregate Length of Ascending Grades. Miles.	Sum of Descents. Ft.	Aggregate Length of Descending Grades. Miles.
Montpelier - Wells River Barre Jc. Barre		38½ 3½	103	20½	18	9.12	19½	9.18	18½

Bridges:

Number Wooden 12

Trestles:

Number 2
Aggregate length (164 + 235) 399 feet.

Gauge of Track: 4 feet, 8½ inches.

STATE OF VERMONT, }
County of Washington, } ss.

I, the undersigned, F. W. Morse, Cashier of the Montpelier and Wells River Railroad Company, on oath do say that the foregoing return has been prepared, under my direction, from the original books, papers, and records of said Company; that I have carefully examined the same, and declare the same to be a complete and correct statement of the business and affairs of said Company in respect to each and every matter and thing therein set forth, to the best of my knowledge, information and belief; and I further say that no deductions were made before stating the gross earnings or receipts herein set forth, except those shown in the foregoing accounts; and that the accounts and figures contained in the foregoing return embrace all of the financial operations of said Company during the period for which said return is made.

F. W. MORSE, *Cashier.*

Subscribed and sworn to before me,
this first day of September, 1890.

S. C. SHURTLEFF,

Master in Chancery.

ANNUAL REPORT
OF THE
NEW LONDON NORTHERN RAILROAD
COMPANY,

FOR THE YEAR ENDING JUNE 30, 1890.

HISTORY.

Name of common carrier making this report: New London Northern Railroad Company.

Date of organization: May 31, 1860.

Organized under the laws of Massachusetts and Connecticut.

Road operated by the Central Vermont Railroad Company.

ORGANIZATION.

Names of Directors.	Post-office Address.	Date of Expiration of Term.
Robert Coit.....	New London, Conn....	February, 1891.
Benjamin Stark....	New London, Conn....	
Augustus Brandegee..	New London, Conn....	
Jonathan N. Harris..	New London, Conn....	
C. A. Williams.....	New London, Conn....	
Thomas Ramsdell....	New London, Conn....	
C. H. Osgood.....	New London, Conn....	
James A. Rumrill....	Springfield, Mass....	
Thomas B. Eaton....	Worcester, Mass....	

Total number of stockholders at date of last election: 328.

Date of last meeting of officers for election of directors: February 5th, 1890.

Post-office address of general office: New London, Conn.

Post-office address of operating office: St. Albans, Vt.

OFFICERS.

President—Robert Coit, New London, Conn.

Secretary—J. A. Southard, New London, Conn.

Treasurer—Robert Coit, New London, Conn.

General Solicitor, Attorney or Counsel—Augustus Brandegee, New London, Conn.

PROPERTY LEASED, OR OTHERWISE ASSIGNED FOR OPERATION

Name.	TERMINALS.		By What Company Operated.	Under What Kind of Contract Operated.	Miles of Line.
	From	To			
New London	New London, Ct.	Brattleboro, Vt.	Central Vt. R. R.	Lease.	121
Northern Brattleboro and Whitehall	Brattleboro, Vt.	So. Londonderry.	Central Vt. R. R.	Lease.	36
Total Mileage.					157

Leased to Central Vermont Railroad Company for twenty years from December 1st, 1871, at a rental of \$155,000 per annum for 100 miles, New London to Miller's Falls; \$39,000 for 21 miles, Miller's Falls to Brattleboro, and interest on advances by lessors for permanent improvements; and \$12,000 per annum for Brattleboro and Whitehall Railroad.

CAPITAL STOCK.

Description.	Par Value of Shares.	Total Par Value Authorized.	Total Amount Issued and Outstanding.
Capital Stock : Common.	\$100 00	\$2,000,000 00	\$1,500,000 00
Total	\$100 00	\$2,000,000 00	\$1,500,000 00

MARKET PRICE OF SHARES.

DIVIDENDS DECLARED DURING Y'R.

June 30, 1890. Average for Year.		Rate.	Amount.
\$150 00	\$150 00	7%	\$105,000 00
\$150 00	\$150 00		\$105,000 00

Manner of Payment for Capital Stock.	Number of Shares.	Total Cash Realized.
Issued for Cash : Common		\$ 340,673 33
Issued for Bonds		1,102,660 00
Stock of Amherst, Palmer and Belchertown Railroad		56,666 67
Total	15,000	\$1,500,000 00

FUNDED DEBT.

Class of Bond or Obligation.	TIME.		Amount of Authorized Issue.	Amount Issued.	Amount Outstanding.	Cash Realized on Amount Issued.	Rate.	When Payable.	INTEREST.	
	Date of Issue.	When Due.							Amount Accrued During Year.	Amount Paid During Year.
Second Mortgage	1872	1892	\$ 500,000 00	\$387,500 00	8287,500 00	\$389,400 00	7%	June & Dec.	827,125 00	827,125 00
Consolidated	1880	1910	.....	812,000 00	812,000 00	847,066 65	5%	Jan. & July.	40,600 00	40,600 00
do	1885	1910	1,500,000 00	300,000 00	300,000 00	304,530 00	4%	Jan. & July.	12,000 00	12,000 00
Total.	.....	.....	\$2,000,000 00	\$1,449,500 00	\$1,499,500 00	\$1,541,196 65	.....	.....	\$79,725 00	\$79,725 00

RECAPITULATION OF FUNDED DEBT.

Account.	INTEREST.		
	Amount Issued.	Amount Outstanding.	Amount Paid During Year.
Bonds	\$1,499,500 00	\$1,499,500 00	\$79,725 00
Total	\$1,499,500 00	\$1,499,500 00	\$79,725 00

CURRENT ASSETS AND LIABILITIES.

Cash and Current Assets Available for Payment of Current Liabilities.		Current Liabilities Accrued to and Including June 30, 1890.	
Cash	\$62,610 83	Loans and Bills Pay- able	\$110,000 00
Due from solvent companies and in- dividuals	59,384 44	Audited Vouchers and Accounts	18 33
		Dividends not called for	1,319 25
		Matur'd Interest Cou- pons Unpaid	4,619 34
		Balance-Cash Assets	6,038 25
Total	\$121,995 27	Total	\$121,995 27

RECAPITULATION.

Account.	Total Amount Outstand- ing	Apportion- ment to Railroads.	AMOUNT PER MILE OF ROAD.	
			Miles.	Amount.
Capital Stock	\$1,500,000 00	\$1,500 000 00	121	\$12,396 69
Bonds	1,499,500 00	1,499,500 00	121	12,392 56
Total	\$2,999,500 00	\$2,999,500 00		\$24,789 25

PERMANENT IMPROVEMENTS FOR THE YEAR.

Item.	EXPENDITURES DURING THE YEAR.		Differences or Net Ad- ditions to Property, Etc.
	Not Includ'd in Operating Expenses.	Total Ex- penditures.	
Construction:			
Right of Way	\$ 450 00	\$ 450 00	\$ 450 00
Purchase of Constructed Road, and Improvements to same	137,493 02	137,493 02	137,493 02
Other Items	4,809 42	4,809 42	4,809 42
Grand Total Construction and Equipment	\$142,721 44	\$142,752 44	\$142,752 44

COST OF ROAD AND EQUIPMENT.

Item.	Total Cost to June 30, 1889.	Net Addi- tions During Year.	Total Cost to June 30, 1890.	Cost Per Mile.
Construction :				
Other Real Es- tate.....		\$ 450 00		
Purchase of Con- structed Road, and Improve- ments to same		137,493 02		
Other Items.....		4,809 42		
Total Construc- tion.....	\$2,810,584 28	\$142,752 44	\$2,953,336 72	\$18,111 06
Total Equipment	\$258,420 44		\$248,420 44	\$2,053 06
Grand Total Cost Construction & Equipment ...	\$3,059,004 72	\$142,752 44	\$3,201,757 16	\$20,164 12

INCOME ACCOUNT.

Income from Lease of Road.....		\$240,446 33
Miscellaneous Income.....	\$ 5,222 25	
Income from Other Sources.....		5,222 25
Total Income.....		\$245,668 58
Deductions from Income :		
Salaries and Maintenance of Organization	\$ 3,952 83	
Interest on Funded Debt Accrued.....	79,725 00	
Interest on Interest-bearing Current Li- abilities Accrued, not otherwise provided for	5,238 34	
Taxes.....	247 19	
Other Deductions, Legal Expenses, In- surance and Miscellaneous.....	9,914 78	
Brattleboro Engine House.....	1,180 51	
Total Deductions from Income.....		100,258 63
Net Income.....		\$145,409 93

INCOME ACCOUNT.—Continued.

Dividends, 7 per cent, Common Stock.....	\$105,000 00	
Total.....		\$105,000 00
Surplus from Operations of Year ending June 30, 1890.....		\$ 40,409 93
Surplus on June 30, 1889.....		436,670 37
Surplus on June 30, 1890		\$477,080 30

BONDS OWNED.

Name.	Total Am't Held.	Rate.
Brattleboro and Whitehall Railroad.....	\$150,000 00	6%
Total.....	\$150,000 00	

MISCELLANEOUS INCOME.

Item.	Gross Income.	Net Miscellaneous Income.
Rents and Wharfage.....	\$2,111 25	\$2,111 25
Insurance on Repair Shop, New London.....	3,111 00	3,111 00
Total.....	\$5,222 25	\$5,222 25

GENERAL BALANCE SHEET.

Cost of Road.....	\$2,953,336 72
Cost of Equipment.....	248,420 44
Bonds of other Companies owned.....	150,000 00
Steamboat Property.....	93,170 00
Cash and Current Assets.....	121,995 27
Other Assets—Sundries.....	25,614 79
Total.....	\$3,592,537 22

GENERAL BALANCE SHEET.—Continued.

Capital Stock.....	\$1,500,000 00
Funded Debt.....	1,499,500 00
Current Liabilities.....	115,956 92
Profit and Loss.....	477,080 30
Total.....	\$3,592,537 22

CASH STATEMENT OF FINANCIAL OPERATIONS FOR
THE YEAR.

Resources to Account For.	Item.	Total.
Net Income :		
From Lease of Road*.....	\$240,446 33	
From Other Sources.....	5,222 25	
Total.....		\$245,668 58
Decrease in Assets :		
Cash Assets.....	\$89,612 11	
Other Assets.....	52,566 07	
Total.....		142,178 18
Grand Total.....		\$387,846 76

Resources Accounted For.	Item	Total.
Fixed Charges :		
Interest on Funded Debt paid.....	\$79,725 00	
Other Interest paid.....	5,238 34	
Taxes.....	247 19	
Total.....		\$ 85,210 53
Other Charges Net Income.....		15,048 12
Dividends.....		105,000 00
Betterments to Property :		
Purchase of Road†.....		137,493 02
Other Permanent Improvements‡.....		5,259 42
Decrease in Current Liabilities.....	\$25,500 04	
Total.....		25,500 04
Increase in Assets :		
Cash on hand.....	\$14,335 63	
Total.....		14,335 63
Grand Total.....		\$387,846 76

*For roads not making reports only.

†Exclusive of bonds sold for construction.

‡Not charged to Operating Expenses.

SECURITY FOR FUNDED DEBT.

Class of Bond or Obligation.	WHAT ROAD MORTGAGED.			Amount of Mortgage per Mile of Line.
	From	To	Miles.	
2nd Mortgage ..	New London..	Miller's Falls..	100	\$3,875 00
Consolidated ...	New London..	Brattleboro ...	121	9,272 73

MILEAGE OWNED BY ROAD MAKING THIS REPORT.

State or Territory.	Main Line Owned.
Connecticut	56
Massachusetts	54
Vermont	11
Total Mileage Owned (all tracks).....	121

CHARACTERISTICS OF ROAD.

Bridges :

Number Stone	2
Number Iron	22
Number Wooden	68

Trestles :

Number, 6 ; aggregate length, 409 feet.

Gauge of Track—4 feet, 8½ inches.

Telegraph.—Operated by Western Union Telegraph Company, 121 miles of line.

STATE OF CONNECTICUT, }
County of New London } ss.

I, the undersigned, Robert Coit, President and Treasurer of the New London Northern Railroad Company, on my oath do say that the foregoing return has been prepared, under my direction, from the original books, papers, and records of said Company; that I have carefully examined the same, and declare the same to be a complete and correct statement of the business and affairs of said Company in respect to each and every matter and thing therein set forth, to the best of my knowledge, information, and belief; and I further say that no deductions were made before stating the gross earnings or receipts herein set forth, except those shown in the foregoing accounts; and that the accounts and figures contained in the foregoing return embrace all of the financial operations of said Company during the period for which said return is made.

ROBERT COIT, *President and Treasurer.*

Subscribed and sworn to before me, this }
23rd day of August, 1890. }

JUSTUS A. SOUTHARD,

Notary Public.

ANNUAL REPORT OF THE ST. JOHNSBURY AND LAKE CHAMPLAIN RAILROAD,

FOR THE YEAR ENDING JUNE 30, 1890.

HISTORY.

Name of common carrier making this report : St. Johnsbury and Lake Champlain Railroad.

Date of organization : Reorganized January 31, 1880.

Organized under the laws of the State of Vermont.

This Railroad is a union of three roads, viz : The Lamoille Valley, chartered in 1867; The Montpelier and St. Johnsbury, chartered in 1866; The Essex County Railroad Company, chartered in 1864, and charter amended in 1866.

Date and authority of each consolidation : Consolidation was effected by the three roads jointly bonding their property, and failing to pay the interest, all went into Receivers' hands, October 18, 1877. The road was restored to the stockholders, July 1, 1880, and operated as the St. Johnsbury and Lake Champlain Railroad.

Previous to the appointment of Receivers and during their operation, the road was called the Portland and Ogdensburgh Railroad, Vermont Division. Reorganized under the name of St. Johnsbury and Lake Champlain Railroad, January 31, 1880, under the laws of the State of Vermont. Commenced to operate under this name, July 1, 1880.

ORGANIZATION.

Names of Directors.	Post-Office Address.	Date of Expiration of Term.
George W. Hendee...	Morrisville, Vt.....	September 11, 1890.
H. E. Folsom	Lyndonville, Vt.....	
W. T. Hart	Boston, Mass.....	
S. C. Shurtleff	Montpelier, Vt.....	
C. S. Page	Hyde Park, Vt.....	
Samuel C. Lawrence.	Medford, Mass.....	
George C. Lord.....	Newton, Mass.....	
C. E. A. Bartlett ...	Chelmsford, Mass.....	
Franklin Fairbanks...	St. Johnsbury, Vt.....	

Total number of stockholders at date of last election : 429.

Date of last meeting of stockholders for election of directors : September 12, 1889.

Post-office address of general office : Montpelier, Vermont.

Post-office address of operating office : Boston, Mass.

OFFICERS.

President—C. E. A. Bartlett, Boston, Mass.
 Secretary and Treasurer—F. W. Morse, Montpelier, Vt.
 Cashier—C. E. A. Bartlett, Boston, Mass.
 Chief Engineer—H. Bissell, Boston, Mass.
 Auditor—M. Taylor, Boston, Mass.
 General Freight Agent—W. F. Berry, Boston, Mass.
 General Passenger Agent and General Ticket Agent—D. J. Flanders, Boston, Mass.
 Division Superintendent—H. E. Folsom, Lyndonville, Vt.
 General Baggage Agent—W. R. Brackett, Boston, Mass.

PROPERTY OPERATED.

Name.	TERMINALS.		Miles of Line for Each Road Named.	Miles of Line for Each Class of Roads Named.
	From	To		
St. Johnsbury and Lake Champlain Railroad.	Lunenburg, Vt.	Maquam Bay, Vt.	120.00	120.00
Victory Branch.....	North Con-cord, Vt.	East Haven, Vt.	11.50	11.50
Total			131.50	131.50

CAPITAL STOCK.

Description.	Par Value of Shares.	Total Par Value Authorized.	Total Amount Issued and Outstanding.
Capital Stock :			
Common	\$50.00	\$2,550,000 00	\$2,550,000 00
Preferred.....	50.00	1,298,500 00	1,298,500 00
Less*			3,848,500 00
Total		\$3,848,500 00	250,250 00
			3,598,250 00

Market Price of Shares, June 30, 1890: Practically of no value.

CAPITAL STOCK.—Continued.

Manner of Payment for Capital Stock.	Number of Shares.	Total Cash Realized.
Issued for Reorganization :		
Common	51,000	Issued in place of Bonds.
Preferred	25,970	
Total	76,970	

* Particulars and Explanations.—Sufficient common and preferred stock was understood to have been issued at the last reorganization to take up all outstanding Bonds. \$250,250 of Bonds have not been so taken up or converted, but the company shows the full issue of stock as a liability, and the unissued as an asset in its treasury.

FUNDED DEBT.

Class of Bond or Obligation.	Time.		Amount of Authorized Issue.	Amount Issued.	Amount Outstanding.	Cash Realized on Amount Issued.
	Date of Issue.	When Due.				
First Mortgage	1880 Ap'l 1.	1910 Ap'l 1.	\$600,000	\$600,000	\$550,000	\$600,000
Consolidated Mortgage }	1884 Ap'l 1.	1914 Ap'l 1.	1,000,000	50,000 41,000	50,000 41,000	41,000
Total .....	.....	.....	\$1,600,000	\$691,000	\$641,000	\$641,000

INTEREST.

Class of Bond or Obligation.	Rate.	When Payable.	Amount Accrued During Year.	Amount Paid During Year.
First Mortgage	6 per c.	April 1, Oct. 1.	\$33,000 00	\$33,000 00
Consolidated Mortgage }	6 per c.	April 1, Oct. 1.	3,000 00	3,000 00
	5 p. c. }	April 1, Oct. 1.	2,050 00	2,050 00
		July 1, Jan 1.		
Total .....	.....	.....	\$38,050 00	\$38,050 00

\$50,000 First Mortgage Bonds were exchanged for same amount of Consolidated Mortgage Bonds.

RECAPITULATION OF FUNDED DEBT.

Account.	Amount Issued.	Amount Outstanding	INTEREST.	
			Amount Accrued During Year.	Amount Paid During Year.
Bonds	\$691,000 00	\$641,000 00	\$38,050 00	\$38,380 00
Total	\$691,000 00	\$641,000 00	\$38,050 00	\$38,380 00

CURRENT ASSETS AND LIABILITIES.

Cash and Current Assets Available for Payment of Current Liabilities.		Current Liabilities Accrued to and Including June 30, 1890.	
Cash	\$ 69,944 14	Loans and Bills Payable.....	\$ 787,335 32
Net Traffic Balances due from Other Companies.....	5,615 98	Audited Vouchers and Accounts....	348,831 17
Due from Solvent Companies and Individuals.....	18,400 62	Wages and Salaries	18,954 40
Other Cash Assets* of small value....	37,046 19	Station Agents.....	2,295 09
Balance—Current Liabilities.....	1,026,409 05		
Total	\$1,157,415 98	Total	\$1,157,415 98

Materials and supplies on hand, \$34,948.12.

RECAPITULATION.

FOR MILEAGE OWNED BY ROAD MAKING THIS REPORT.

Account.	Total Am't Outstand'g.	Apportionm't to Railroads.	Miles.	Amount per Mile of Road.
Capital Stock...	\$3,598,250 00	\$3,598,250 00	131.50	\$27,363 12
Bonds	641,000 00	641,000 00	131.50	4,874 52
Total	\$4,239,250 00	\$4,239,250 00	.....	\$32,237 64

RECAPITULATION.—Continued.

For Mileage Operated by Road making this Report (Trackage Rights Excluded), the Operations of which are Included in the Income Account.

Name of Road.	Capital Stock.	Funded Debt.	Current Liabilities.
St. Johnsbury and Lake Champlain Railroad	\$3,598,250 00	\$641,000 00	\$1,026,409 05

Total Liabilities, \$5,265,659 05.

Number of miles, 131.50. Amount per mile of road, \$40,043 03.

PERMANENT IMPROVEMENTS FOR THE YEAR.

Item.	Total Expenditures During the Year.	Credits Property and Material Sold.	Differences or Net Additions to Property Etc.
Construction :			
Right of Way, Land Bridges and Trestles, Pumpkin Hill.....	\$ 1,382 31	.....	\$ 1,382 31
Buildings, Furniture and Fixtures. Lunenburg Imp.....	51,223 54	\$14,233 96	36,989 58
	22,289 11	.....	22,289 11
Total Construction	\$74,894 96	\$14,233 96	\$60,661 00

COST OF ROAD AND EQUIPMENT.

Item.	Total Cost to June 30, 1889.	Net Addi- tions Dur- ing Year.	Total Cost to June 30, 1890.	Cost Per Mile.
Construction :				
Right of Way				
Other Real Estate				
Fences				
Grading and				
Bridge and				
Culvert				
Masonry	\$4,458,872 19	\$60,661 00	\$4,519,533 19	\$34,369.07
Bridges and				
Trestles ..				
Rails				
Ties				
Other Super- structures.				
Buildings,				
Furniture				
and				
Fixtures ..	8,318 52	.....	8,318 52	63.25
Shop Ma- chinery				
and Tools.				
Total				
Construction	\$4,467,190 71	\$60,661 00	\$4,527,851 71	\$34,432 32
Equipment :				
Locomotives				
Passenger				
Cars				
Sleeping,				
Parlor and				
Dining				
Cars				
Baggage, Ex- press and	\$151,567 53	.....	\$151,567 53	\$1,152 60
Postal Cars				
Combination				
Cars				
Freight Cars				
Other Cars of all classes				
Floating				
Equipment				
Total				
Equipment	\$151,567 53	.....	\$151,567 53	\$1,152 60
Grand Total				
Cost Con- struction and				
Equipment.	\$4,618,758 24	\$60,661 00	\$4,679,419 24	\$35,584 92

INCOME ACCOUNT.

Gross Earnings from Operation.....	\$396,467 43	
Less Operating Expenses.....	376,730 47	
Income from Operation.....		\$19,736 96
Total Income.....		\$19,736 96
Deductions from Income :		
Interest on Funded Debt Accrued.....	\$38,050 00	
Taxes.....	7,334 28	
Other Deductions, Steamer Maquam.....	9,408 11	
Old Debts.....	1,706 07	
Total Deductions from Income.....		\$56,498 46
Deficit.....		\$26,761 50
Deficit from Operations of Year ending June 30, 1890.....		\$ 36,761 50
Deficit on June 30, 1889.....		364,918 49
Deficit on June 30, 1890.....		\$401,679 99

EARNINGS FROM OPERATION.

Item.	Total Receipts.	Actual Earnings.
Passenger :		
Passenger Revenue.....	\$71,508 96	
Total Passenger Revenue.....		\$71,508 96
Mail.....		10,049 82
Express.....		3,300 00
Other Items.....		264 99
Total Passenger Earnings.....		\$85,123 77
Freight :		
Freight Revenue.....	\$310,689 84	
Total Freight Revenue.....		\$310,689 84
Total Freight Earnings.....		\$310,689 84
Total Passenger and Freight Earnings.....		\$395,813 61
Other Earnings from Operation :		
Other Sources.....		653 82
Total Other Earnings.....		653 82
Total Gross Earnings from Operation.....		\$396,467 43

OPERATING EXPENSES.

Item.	Chargeable to Passenger Traffic.	Chargeable to Freight Traffic.	Total.
Maintenance of Way and Structures :			
Repairs of Roadway	\$19,129 56	\$46,766 28	\$65,895 84
Renewals of Rails	3,591 27	8,779 61	12,370 88
Renewals of Ties	5,563 37	13,600 86	19,164 23
Repairs of Bridges and Culverts	8,818 68	21,559 14	30,377 82
Repairs of Fences, Road-crossings, Signs and Cattle-guards	1,635 75	3,998 94	5,634 69
Repairs of Buildings	2,625 36	6,418 26	9,043 62
Total	\$41,363 99	\$101,123 09	\$142,487 08
Maintenance of Equipment :			
Repairs and Renewals of Locomotives	\$6,626 69	\$16,200 34	\$22,827 03
Repairs and Renewals of Passenger Cars	4,323 93	-----	4,323 93
Repairs and Renewals of Freight Cars	-----	17,389 34	17,389 34
Total	\$10,950 62	\$33,589 68	\$44,540 30
Conducting Transportation :			
Wages of Enginemen, Firemen and Round-housemen	\$ 9,754 07	\$23,845 91	\$33,599 98
Fuel for Locomotives	18,441 50	45,084 16	63,525 66
Water-supply for Locomotives	473 55	1,157 69	1,631 24
All other Supplies for Locomotives	719 43	1,758 81	2,478 24
Wages of other Trainmen	5,766 66	18,908 60	24,675 26
All other Train Supplies	630 53	2,493 44	3,123 97
Expense of Telegraph, including Train Despatchers and Operators	1,196 56	2,925 24	4,121 80
Wages of Station Agents, Clerks and Laborers	3,946 10	9,647 08	13,593 18
Station Supplies	932 81	2,280 45	3,213 26
Car Mileage—Balance	1,541 24	14,052 83	15,594 07
Loss and Damage	75 96	1,462 64	1,538 60
Injuries to persons	290 00	708 98	998 98
Total	\$43,768 41	\$124,325 83	\$168,094 24

OPERATING EXPENSES.—Continued.

Item.	Chargeable to Passenger Traffic.	Chargeable to Freight Traffic.	Total.
General Expenses :			
Salaries of Officers	\$2,757 04	\$6,740 16	\$9,497 20
Agencies, including Salaries and Rent		356 12	356 12
Advertising	1,053 90		1,053 90
Insurance	440 87	1,077 81	1,518 68
Expense of Fast Freight Lines		1,932 35	1,932 35
Legal Expenses	916 21	2,239 88	3,156 09
Stationery and Printing	863 20	2,110 27	2,973 47
Other General Expenses	325 44	795 60	1,121 04
Total	\$6,356 66	\$15,252 19	\$21,608 85
Recapitulation of Expenses :			
Maintenance of Way and Structures	\$41,363 99	\$101,123 09	\$142,487 08
Maintenance of Equipment	10,950 62	33,589 68	44,540 30
Conducting Transportation	43,768 41	124,325 83	168,094 24
General Expenses	6,356 66	15,252 19	21,608 85
Grand Total	\$102,439 68	\$274,290 79	\$376,730 47

Percentage of Operating Expenses to Earnings, 95 per cent.

GENERAL BALANCE SHEET.

Cost of Road	\$4,527,851 71	Capital Stock ..	\$3,598,250 00
Cost of Equipment	151,567 53	Funded Debt	641,000 00
Other permanent investments, Steamboat	31,123 96	Current Liabilities Accrued Interest on Funded Debt not yet payable ..	1,157,415 98 9,512 50
Lands owned at Maquam	81,600 24	Accrued Taxes	3,600 00
Cash and Current Assets	131,006 93		
Other Assets :			
Materials and Supplies	84,948 12		
Profit and Loss	401,679 99		
Total	\$5,409,778 48	Total	\$5,409,778 48

CASH STATEMENT OF FINANCIAL OPERATIONS FOR THE YEAR.

Resources to Account For.	Item.	Total.
Net Income :		
From Operation	\$19,736 96	
Total		\$ 19,736 96
Increase in Liabilities :		
Increase in Current Liabilities ..	\$112,512 30	
Total		112,512 30
Decrease in Assets :		
Cash Assets	\$22,123 19	
Other Assets, Working Material ..	15,524 98	
Total		37,648 17
Grand Total		\$169,897 43
Resources Accounted For.	Item.	Total.
Fixed Charges :		
Interest on Funded Debt paid ..	\$38,380 00	
Taxes paid	6,884 28	
Total		\$45,264 28
Other Charges against Net Income ..		11,114 18
Betterments to Property :		
Other Permanent Improvements ..	\$60,661 00	
Total		60,661 00
Increase in Assets :		
Cash on hand	\$52,857 97	
Total		52,857 97
Grand Total		\$169,897 43

CONTRACTS, AGREEMENTS, ETC.

American Express Company—Stated Allowance.

United States—Stated Allowance.

Wagner Palace Car Company—We allow mileage for use of their cars.

Arrangement with Lines as shown under Questions for General Information.

Numerous arrangements with connecting and other Roads.

Vermont International Telegraph Company—Stated Rental.

SECURITY FOR FUNDED DEBT.

Class of Bond or Obligation.	What Road Mortgaged.	Miles.	Amount of Mortgage Per Mile of Line.
First Mortgage and Consolidated Mortgage.....	Entire Road.	131.50	\$4,874 52

All the Equipment is Mortgaged.

EMPLOYES AND SALARIES.

Class.	Number.	Total Yearly Compensation	Average Daily Compensation.
General Officers.....	5	\$ 7,050 00	
General Office Clerks.....	5	3,400 00	
Station Agents.....	26	10,440 00	\$1.30
Other Station Men.....	3	1,200 00	1.27
Enginemen.....	22	18,963 48	2.76
Firemen.....	23	10,916 64	1.50
Conductors.....	16	9,916 60	2.00
Other Trainmen.....	28	13,724 88	1.57
Machinists.....	3	2,134 20	2.50
Carpenters. All account of Buildings and Bridges.....	23	11,830 92	1.65
Other Shopmen.....	26	10,333 80	1.27
Section Foremen.....	34	15,912 00	1.50
Other Trackmen.....	109	40,809 60	1.20
Switchmen, Flagmen and Watchmen.....	1	324 00	1.00
Telegraph Operators and Dispatchers.....	4	1,718 16	1.40
Total.....	328	\$148,224 48	
Distribution of Above :			
General Administration...	10	\$10,450 00	
Maintenance of Way and Structures.....	166	68,552 52	
Maintenance of Equipment.....	29	12,468 00	
Conducting Transportation.....	123	66,903 96	
Total.....	328	\$148,374 48	

PASSENGER, FREIGHT, AND TRAIN MILEAGE.

Item.	Column for Ton- nage, Number Passengers, Number Trains, Mileage, Number Cars.	COLUMN FOR REVE- NUE AND RATES.		
		Dollars.	Cts.	Mills.
Passenger Traffic :				
Number of passengers carried earning revenue.....	126,020			
Number of passengers carried one mile.....	2,422,240			
Average distance carried.....	19.22			
Total passenger revenue.....		\$71,508	96	
Average amount received from each passenger.....			56	744
Average receipts per passenger per mile.....			02	952
Estimated cost of carrying each passenger one mile.....			04	229
Passenger earnings per mile of road.....		647	32	
Passenger earnings per train-mile.....			52	534
Freight Traffic :				
Number of tons carried of freight earning revenue....	541,299			
Number of tons carried one mile.....	26,096,995			
Average distance haul of one ton.....	48.21			
Total freight revenue.....		\$10,689	84	
Average amount received for each ton of freight.....			57	397
Average receipts per ton per mile.....			01	190
Estimated cost of carrying one ton one mile.....			01	051
Freight earnings per mile of road.....		2,362	66	
Freight earnings per train-mile.....			78	442
Passenger and Freight :				
Passenger and freight earnings.....		\$395,813	61	
Passenger and freight earnings per mile of road.....		3,009	99	
Expense per mile of road.....		2,864	87	

PASSENGER FREIGHT AND TRAIN MILEAGE.—Continued.

Item.	Column for Ton- nage, Number Passengers, Number Trains, Mileage, Number Cars.	COLUMN FOR REVE- NUE AND RATES.		
		Dollars.	Cts.	Mills.
Number of passenger trains..	4			
Number of freight trains....	12			
Number of mixed trains.....	6			
Train Mileage :				
Miles run by passenger trains	162,035			
Miles run by freight trains..	396,075			
Total Mileage Trains Earn- ing Revenue.....	558,110			
Miles run by switching trains	43,910			
Miles run by construction and other trains.....	28,336			
Grand Total Train Mileage	630,356			

DESCRIPTION OF EQUIPMENT.

Item.	Total Number at End of Year.	EQUIPPED WITH TRAIN BRAKE.		CARS FITTED WITH AUTOMATIC COUPLER.	
		No.	Kind.	No.	Kind.
Locomotives :					
Passenger	8	8	West'house		
Freight	4				
Total	12				

DESCRIPTION OF EQUIPMENT.—Continued.

Item.	Total Number at End of Year.	EQUIPPED WITH TRAIN BRAKE.		CARS FITTED WITH AUTOMATIC COUPLER.	
		No.	Kind.	No.	Kind.
Cars in Passenger Service :					
First-class Pas- senger Cars...	5	5	West'house	5	Miller.
Parlor Cars....	1	1	"	1	"
Baggage, Express and Postal Cars	2	2	"	2	"
Total.....	8	8		8	
Cars in Freight Service :					
Box Cars	118				
Flat Cars.....	133				
Stock Cars.....	12				
Total.....	263				
Cars in Company's Service :					
Derrick Cars. }	5				
Caboose Cars. }					
Total.....	5				
Cars contributed to Fast Freight Line Service	23				
Grand Total..	291				

MILEAGE.

Line in Use.	Main Line Owned.	Branch Line Owned.	Total Mileage Operated.	RAILS.	
				Iron.	Steel.
Miles of Single Track.....	120.00	11.50	131.50	3.70	127.80
Miles of Yard Track, Sidings and Spurs.....	19.02	.....	19.02	19.02	
Total Mileage Operated (all tracks)	139.02	11.50	150.52	22.72	127.80

MILEAGE OF LINE BY STATES AND TERRITORIES.

State or Territory.	Main Line Owned.	Branch Line Owned.	Total Mileage, Excluding Track-age Rights.	RAILS.	
				Iron.	Steel.
Vermont	120.00	11.50	131.50	3.70	127.80
Total Mileage Operated (single track).....	120.00	11.50	131.50		

RENEWALS OF RAILS AND TIES.

NEW RAILS LAID DURING YEAR.

NEW TIES LAID DURING YEAR.

Kind.	Tons.	Weight per Yard.	Average Price per Ton at Distributing Point.	Kind.	Number.	Average Price at Distributing point.
Steel	553	60 lbs.	\$32 00	Cedar	21,426	25c.
				Tamarack ..	11,860	25c.
				Hemlock ..	33,921	29c.
				Total. . .	67,207	

CONSUMPTION OF FUEL BY LOCOMOTIVES.

Locomotives.	Tons Bituminous Coal.	Cords Soft Wood.	Total Fuel Consumed —Tons.	Miles Run.	Average Pounds Consumed Per Mile.
Passenger	4,249	214	4,354	162,035	60.19
Freight	10,381	524	10,643	396,075	60.19
Switching	1,151	58	1,180	43,910	60.19
Construction ...	743	38	762	28,336	60.19
Total	16,522	834	16,939	630,356	

Average cost of Bituminous Coal at distributing point, \$3.97 per ton. Average cost of Soft Wood, \$3.52 per cord.

ACCIDENTS TO PERSONS.

Coupling and uncoupling cars, two trainmen injured. Falling from train, one trainman injured ; died in a few weeks.

At Stations, one employe injured ; died in a few weeks.

CHARACTERISTICS OF ROAD.—Continued.

Bridges :

Number Wooden..... 22

Trestles :

Number..... 37

Aggregate Length..... 4,725 feet.

Gauge of Track :..... 4 feet, 8½ inches.

Telegraph :

Operated by the Vermont International Telegraph Company.
Length of line, 120 miles.

GENERAL INFORMATION.

This Company pays the Boston and Maine Railroad rental for accommodations at St. Johnsbury.

The following Fast Freight Lines operate over this Road : Canadian Pacific Despatch; Rome, Watertown and Ogdensburg; Red; White; Midland, Blue; Nickel Plate; Great Eastern; Ogdensburg Transit Company; and Canada Atlantic.

STATE OF MASSACHUSETTS, } ss :
County of Suffolk, }

We, the undersigned, C. E. A. Bartlett, President, and Myron Taylor, Auditor, of the St. Johnsbury and Lake Champlain Railroad Company, on our oath do severally say that the foregoing return has been prepared, under our direction, from the original books, papers, and records of said Company ; that we have carefully examined the same, and declare the same to be a complete and correct statement of the business and affairs of said Company in respect to each and every matter and thing therein set forth, to the best of our knowledge, information, and belief ; and we further say that no deductions were made before stating the gross earnings or receipts herein set forth, except those shown in the foregoing accounts ; and that the accounts and figures contained in the foregoing return embrace all of the financial operations of said Company during the period for which said return is made.

Subscribed and sworn to before me,
this 22d day of August, 1890.

SIGOURNEY BUTLER,
Justice of the Peace.

ANNUAL REPORT

OF THE

SOUTH EASTERN RAILWAY COMPANY,

FOR THE YEAR ENDING JUNE 30, 1890.

OFFICERS.

Trustees— { W. C. Van Horne, Montreal, Canada.
 { J. T. Furber, Boston, Mass.
 { Wm. Farwell, Sherbrooke, Canada.
 Auditor—P. O. Ryan, Montreal Canada.
 General Superintendent—Thos. Tait, Toronto, Canada.
 Post-office address of General Office—Montreal, P. Q.

PROPERTY OPERATED.

Whole line of road in Canada.....	260 miles
“ “ “ “ “ Vermont	21 “
Total Mileage Operated.....	281 miles

PROPERTY LEASED OR OTHERWISE ASSIGNED FOR OPERATION.

Name.	TERMINALS.		Miles of Line.
	From	To	
Newport and Richford	Newport, Vt..	Richford, Vt..	21

This road is operated by the Canadian Pacific Railway Company for the Trustees of the South Eastern Railway Company, under a lease.

The Newport and Richford Railroad, from Newport, Vermont, to Richford, Vermont, is leased to the South Eastern Railway for the term of 99 years, from June 29th, 1881, at a rental of eighteen thousand dollars per year (\$18,000).

As no separate accounts are kept with this portion of the road, it is impossible to give a good deal of the information required, and what is furnished of the earnings and expenses is derived by prorating according to the train mileage, as according to semi-annual report to Commissioners.

INCOME ACCOUNT.

Gross Earnings from Operation.....	\$94,442 64
Less Operating Expenses.....	76,826 45
Income from Operation.....	\$17,616 19
Surplus from operations of year ending June 30, 1890....	\$17,616 19

EARNINGS FROM OPERATIONS.

Item.	Total Receipts.	Actual Earnings.
Passenger Revenue.	\$29,988 98	
Total Passenger Revenue.....		\$29,988 98
Mail.	\$1,574 73	1,574 73
Express.....	1,281 42	1,281 42
Total Passenger Earnings.....		\$32,845 13
Freight Revenue.....	\$58,467 43	
Total Freight Revenue.....		\$58,467 43
Total Freight Earnings.....		\$58,467 43
Total Passenger & Freight Earnings.....		\$91,312 56
Car Mileage—Balance.....	\$2,231 64	\$2,231 64
Other Sources.....	898 44	898 44
Total Gross Earnings from Operation.....		\$94,442 64

OPERATING EXPENSES.

Item.	Chargeable to Passenger Traffic.	Chargeable to Freight Traffic.	Total.
Maintenance of Way and Structures:			
Repairs of Roadway.....	\$5,742 81	\$6,383 05	\$12,125 86
Renewals of Rails.....			
Renewals of Ties.....			
Repairs of Bridges and Culverts.....	1,496 10	1,662 82	3,158 92
Repairs of Fences, Road-crossings, Signs and Cattle Guards.....	832 00	924 79	1,756 79
Repairs of Buildings.....	715 73	795 66	1,511 39
Repairs of Docks and Wharves.....	38 75	43 08	81 83

OPERATING EXPENSES.—Continued.

Item.	Chargeable to Passenger Traffic.	Chargeable to Freight Traffic.	Total.
Cleaning Snow	\$273 90	\$304 40	\$578 30
Other Expenses	123 77	137 57	261 34
Total	\$9,223 06	\$10,251 37	\$19,474 43
Maintenance of Equipment :			
Repairs and Renewals of Locomotives	\$1,842 30	\$2,047 68	\$3,889 98
Repairs and Renewals of Pas- senger Cars	852 47	947 53	1,800 00
Repairs and Renewals of Freight Cars	2,856 97	3,175 52	6,032 49
Shop Machinery, Tools, etc.	325 47	361 79	687 26
Other Expenses	281 50	312 91	594 41
Total	\$6,158 71	\$6,845 43	\$13,004 14
Conducting Transportation :			
Wages of Enginemen, Fire- men, and Round-house- men	\$3,078 08	\$3,421 26	\$ 6,499 34
Fuel for Locomotives	6,030 74	6,703 08	12,733 82
Water-supply for Locomo- tives	332 94	370 08	703 02
All other Supplies for Loco- motives	277 39	308 31	585 70
Wages of other Trainmen	2,399 68	2,667 23	5,066 91
All other Train Supplies	323 00	358 96	681 96
Cattle Killed	81 05	90 12	171 17
Expense of Telegraph, in- cluding Train Dispatch- ers and Operators	429 32	477 19	906 51
Wages of Station Agents, Clerks and Laborers	3,291 70	3,658 68	6,950 38
Station Supplies	394 93	438 95	833 88
Station Expenses	52 47	58 31	110 78
Care, Heating and Cleaning Passenger Cars	796 18	884 96	1,681 14
Loss and Damage	43 80	48 64	92 44
Injuries to Persons	22 38	24 86	47 24
Fuel for Stations, etc	264 03	293 53	557 56
Other Expenses	53 29	59 21	112 50
Total	\$17,870 98	\$19,863 37	\$37,734 35

OPERATING EXPENSES.—Continued.

Item.	Chargeable to Passenger Traffic.	Chargeable to Freight Traffic.	Total.
General Expenses :			
Salaries of Officers.....	\$1,244 34	\$1,383 06	\$2,627 40
Salaries of Clerks.....			
Advertising	183 33	208 77	387 10
Insurance	223 44	248 34	471 78
Legal Expenses.....	386 36	429 44	815 80
Stationery and Printing....	702 30	780 58	1,482 88
Other General Expenses....	16 43	18 30	34 73
Taxes	375 96	417 88	793 84
Total.....	\$3,132 16	\$3,481 37	\$6,613 53
Recapitulation of Expenses :			
Maintenance of Way and Structures.....	\$ 9,223 06	\$10,251 37	\$19,474 43
Maintenance of Equipment.....	6,158 71	6,845 43	13,004 14
Conducting Transportation.....	17,870 98	19,863 37	37,734 35
General Expenses.....	3,132 16	3,481 37	6,613 53
Grand Total.....	\$36,384 91	\$40,441 54	\$76,826 45

Percentage of Operating Expenses to Earnings, 81.347.

PASSENGER, FREIGHT, AND TRAIN MILEAGE.

Item.	Column for Tonnage, Num- ber Passengers, Number Trains, Mileage, Number Cars.	COLUMN FOR REV- ENUE AND RATES.		
		Dollars.	Cts.	Mills.
Passenger Traffic :				
Total Passenger Revenue....		29,988	98	
Passenger Earnings per Mile of Road.....		1,428	04	2
Freight Traffic :				
Total Freight Revenue.....		58,467	43	
Freight Earnings per Mile of Road.....		2,784	16	3

PASSENGER, FREIGHT, AND TRAIN MILEAGE.—Continued.

Item.	Column for Tonnage, Num- ber Passengers, Number Trains, Mileage, Number Cars.	COLUMN FOR REV- ENUE AND RATES.		
		Dollars.	Cts.	Mills.
Passenger and Freight :				
Passenger and freight earn- ings.....		88,456	41	
Passenger and freight earn- ings per mile of road.....		4,212	20	5
Total earnings per mile of road, including Mails, Ex- press, etc.....		4,497	26	9
Train Mileage :				
Miles run by passenger trains	41,349			
Miles run by freight trains }	45,894			
Miles run by mixed trains. }				
Total Mileage Trains Earning Revenue.....	87,243			
Grand Total Train Mileage...	87,243			

DESCRIPTION OF EQUIPMENT.

Item.	Total Number At End of Year.
Locomotives :	
Passenger.....	30
Freight.....	
Switching.....	
Total.....	30
Cars in Passenger Service :	
First-class Passenger Cars.....	24
Second-class Passenger Cars.....	
Combination Passenger Cars.....	
Parlor Cars.....	2
Baggage, Express, and Postal Cars.....	10
Total.....	36
Cars in Freight Service :	
Box Cars.....	780
Flat Cars.....	
Stock Cars.....	
Other Cars.....	58
Total.....	838

ACCIDENTS TO PERSONS.

November 25th, 1889, one employe had his hand bruised while coupling cars at Richford.

CHARACTERISTICS OF ROAD.

Bridges:

Number Iron.....	2
Howe Truss.....	1
Pile.....	5

Trestles:

Aggregate Length.....	2,456 feet.
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PROVINCE OF QUEBEC,)
 County of Hochelaga.) ss.

I, the undersigned, Philip O. Ryan, Auditor for the Trustees of the South Eastern Railway Company, on my oath do say that the foregoing return has been prepared, under my direction, from the original books, papers, and records of said Company; that I have carefully examined the same, and declare the same to be a complete and correct statement of the business and affairs of said Company in respect to each and every matter and thing therein set forth, to the best of my knowledge, information, and belief; and I further say that no deductions were made before stating the gross earnings or receipts herein set forth, except those shown in the foregoing accounts; and that the accounts and figures contained in the foregoing return embrace all of the financial operations of said Company during the period for which said return is made.

PHILIP O. RYAN, *Auditor for the Trustees.*

Subscribed and sworn to before
 me this 28th day of August,
 1890.

R. T. HENCKE,
Commissioner for taking Affidavits for the Province of Quebec.

ANNUAL REPORT OF THE VERMONT VALLEY RAILROAD COMPANY of 1871,

FOR THE YEAR ENDING JUNE 30, 1890.

HISTORY.

Name of common carrier making this report : Vermont Valley Railroad Company of 1871.

Date of organization : July 3rd, 1871.

Organized under the general laws of the State of Vermont.

Vermont Valley Railroad Co., chartered Nov. 8th, 1848, under the laws of the State of Vermont.

ORGANIZATION.

Names of Directors.	Post-office Address.	Date of Expiration of Term.
A. B. Harris.....	Boston, Mass.....	June, 1891.
H. C. Robinson.....	Hartford, Conn.....	
Oscar Edwards.....	Northampton, Mass....	
Frederick Billings....	Woodstock, Vt.....	
Hugh Henry.....	Chester, Vt.....	
J. H. Williams.....	Bellows Falls, Vt.....	
H. E. Folsom.....	Lyndonville, Vt.....	

Total number of stockholders at date of last election : 53.

Date of last meeting of stockholders for election of directors : June 18th, 1890.

Post-office address of general office : 45 Broadway, New York.

Post-office address of operating office : Springfield, Mass.

OFFICERS.

President—A. B. Harris, 45 Broadway, N. Y.

Clerk—J. H. Williams, Bellows Falls Vt.

Treasurer—J. H. Williams, Bellows Falls, Vt.

Assistant Treasurer—Seth Hunt, Springfield, Mass.

Cashier—Geo. E. Frink, Springfield, Mass.

Auditor—W. H. Wilson, Springfield, Mass.

General Freight Agent—H. E. Howard, Springfield, Mass.

General Ticket Agent—E. C. Watson, Springfield, Mass.

General Superintendent—J. Mulligan, Springfield, Mass.

Assistant Superintendent—J. E. Goodwin, Bellows Falls, Vt.

General Baggage Agent—W. E. Hill, Springfield, Mass.

PROPERTY OPERATED.

Name.	TERMINALS.		Miles of Line for Each Road Named.	Miles of Line for Each Class of Roads Named.
	From	To		
Vermont Valley Railroad Co. of 1871.....	Brattleboro, Vt.	Bellows Falls, Vt.	24	24
Total.....	.....	.....	24	24

CAPITAL STOCK.

Description.	Par Value of Shares.	Total Par Value Authorized.	Total Amount Issued and Outstanding.	Amount Dividends Declared During Y'r.
Capital Stock : Common.....	\$50.00	\$1,000,000	\$1,000,000	\$60,000
Total.....	\$50.00	\$1,000,000	\$1,000,000	\$60,000

Manner of Payment for Capital Stock.	Number of Shares.	Total Cash Realized.
Issued for Cash : Common.....	20,000	\$1,000,000

Six per cent dividend declared during the year.

FUNDED DEBT.

Class of Bond or Obligation.	Time.		Amount of Authorized Issue.	Amount Issued.	Amount Outstanding.
	Date of Issue.	When Due.			
First Mortgage : 1880.	1880.	1910.	\$800,000	\$800,000	\$800,000
Total.....	.....	.....	\$800,000	\$800,000	\$800,000

FUNDED DEBT.—Continued.

Class of Bond or Obligation.	Cash Realized on Amount Issued.	Interest.			
		Rate.	When Payable.	Amount Accrued during Year.	Amount Paid dur- ing Year.
First Mortgage:	\$800,000	5%	Ap'l & Oct.	\$40,000	\$40,000
Total.....	\$800,000	.....	.....	\$40,000	\$40,000

RECAPITULATION OF FUNDED DEBT.

Account.	Amount Issued.	Amount Outstand- ing.	Interest.	
			Amount Accrued during Year.	Amount Paid dur- ing Year.
Bonds.....	\$800,000	\$800,000	\$40,000	\$40,000
Total.....	\$800,000	\$800,000	\$40,000	\$40,000

CURRENT ASSETS AND LIABILITIES.

Cash and Current Assets Available for Payment of Current
Liabilities.

Cash	\$ 32 75
Due from Solvent Companies and Individuals.....	124,259 36
Total	\$124,292 11

Current Liabilities Accrued to and Including June 30, 1890.

Loans and Bills Payable	\$ 45,000 00
Dividends not called for	32 75
Balance—Cash Assets.....	79,259 36
Total	\$124,292 11

RECAPITULATION.

Account.	Total Amount Outstanding	Apportionment To Railroads.	AMOUNT PER MILE OF ROAD.	
			Miles.	Amount.
Capital Stock	\$ 1,000,000	\$ 1,000,000	24	\$41,666 66
Bonds	800,000	800,000	24	33,333 33
Total	\$ 1,800,000	\$ 1,800,000	24	\$ 75,000 00

For Mileage Operated by Road making this Report (Trackage Rights Excluded), the Operations of which are Included in the Income Account.

Name of Road.	Capital Stock.	Funded Debt.	Current Liabilities	Total.	Amount per Mile of Road.	
					Miles.	Amount.
Vt. Valley.	\$1,000,000	\$800,000	\$45,032.75	\$1,845,032.75	24	\$76,876 36
Grand Total ..	\$1,000,000	\$800,000	\$45,032.75	\$1,845,032.75	24	\$76,876 36

PERMANENT IMPROVEMENTS FOR THE YEAR.

Item.	EXPENDITURES DURING THE YEAR.		Differences or Net Additions to Property, etc.
	Not Included in Operating Expenses.	Total Ex- penditures.	
Construction :			
Bridges and Trestles*....	\$3,383 65	\$3,383 65	\$3,383 65
Buildings, Furniture and Fixtures*	6,754 53	6,754 53	6,754 53
Total Construction.....	\$10,138 18	\$10,138 18	\$10,138 18
Grand Total Construction and Equipment.....	\$10,138 18	\$10,138 18	\$10,138 18

*Charged to Operating Expenses in years 1886 and 1887, and now transferred to Construction Account.

COST OF ROAD AND EQUIPMENT.

Item.	Total Cost to June 30, 1889.	Net Additions during Year.	Total Cost to June 30, 1890.	Cost Per Mile.
Total Construction...	\$972,251 00	\$10,138 18	\$982,389 18	\$40,932 88
Total Equipment....	\$63,048 84	.....	\$63,048 84	\$2,627 03
Grand Total Cost Construction and Equipment.....	\$1,035,299 84	\$10,138 18	\$1,045,438 02	\$43,559 91

INCOME ACCOUNT.

Gross Earnings from Operation.	\$193,085 83	
Less Operating Expenses.....	108,175 42	
Income from Operation.....		\$84,910 41
Dividends on Stocks owned.....	\$40,000 00	
Rental of Tracks, Yards and Terminals.....	600 00	
Miscellaneous Income—less Expenses.....	4,890 10	
Income from Other Sources.....		\$45,490 10
Total Income.....		\$130,400 51
Deductions from Income:		
Interest on Funded Debt Accrued...	\$ 40,000 00	
Interest on Interest-bearing Current Liabilities Accrued, not Otherwise Provided for	3,873 14	
Rentals, including Tracks, Yards and Terminals.....	2,087 35	
Taxes.....	5,361 99	
Total Deductions from Income		\$ 51,322 48
Net Income.....		\$ 79,078 03
Dividends, 6 per cent., Common Stock.....	\$ 60,000 00	
Total.....		\$ 60,000 00
Surplus from Operations of Year end- ing June 30, 1890.....		\$ 19,078 03
Surplus on June 30, 1889.....		96,238 71
Surplus on June 30, 1890.....		\$115,316 74
Add, as per Construction Account...	\$ 10,138 18	
Less Report of 1889.....	757 54	9,380 64
		\$124,697 38

EARNINGS FROM OPERATION.

Item.	Total Receipts.	Deductions Account of Repayments, Etc.	Actual Earnings.
Passenger :			
Passenger Revenue	\$80,420 46		
Less Repayments :			
Tickets Redeemed		\$ 12 67	
Excess Fares Refunded		107 75	
Other Repayments		7 70	
Total Deductions		\$128 12	
Total Passenger Revenue			\$ 80,292 34
Mail			8,101 38
Express			3,360 00
Total Passenger Earnings			\$ 91,753 72
Freight :			
Freight Revenue	\$108,251 30		
Less Repayments :			
Overcharge to Shippers		\$ 574 57	
Other Repayments		6,344 62	
Total Deductions		\$6,919 19	
Total Freight Revenue			\$101,332 11
Total Freight Earnings			\$101,332 11
Total Passenger and Freight Earnings			\$193,085 83
Total Gross Earnings from Operation			\$ 193,085 83

STOCKS OWNED.

Sullivan County Railroad Company, Total Par Value, \$800,000 ;
Rate, 5 per cent. ; Income on Dividend Received, \$40,000.

RENTALS RECEIVED.

Designation of Property.	Situation of Property Leased.	Name of Company Using Property Leased.	Total.
Tracks :	Brattleboro, Vt.	Brattleboro & Whitehall R.	.....
Yards :	Brattleboro, Vt.	Brattleboro & Whitehall R.	.....
Terminals :	Brattleboro, Vt.	Brattleboro & Whitehall R.	.....
Total Rentals Received			\$600

MISCELLANEOUS INCOME.

Item.	Gross Income.	Net Miscellaneous Income.
Interest	\$4,619 42	\$4,619 42
Rent of Real Estate	270 68	270 68
Total	\$4,890 10	\$4,890 10

OPERATING EXPENSES.

Item.	Chargeable to Passenger Traffic.	Chargeable to Freight Traffic.	Total.
Maintenance of Way and Structures :			
Repairs of Roadway	\$10,321 74	\$ 7,669 79	\$ 17,991 53
Renewals of Rails	761 48	565 84	1,327 32
Renewals of Ties	3,389 17	2,518 40	5,907 57
Repairs of Bridges and Culverts	1,459 21	1,084 30	2,543 51
Repairs of Buildings	989 11	734 98	1,724 09
Repairs of Docks and Wharves	1,009 69	750 27	1,759 96
Total	\$16,407 44	\$12,191 90	\$28,599 34

OPERATING EXPENSES.—Continued.

Item.	Chargeable to Passenger Traffic.	Chargeable to Freight Traffic.	Total.
Maintenance of Equipment :			
Repairs and Renewals of Locomotives.....	\$3,084 55	\$2,291 89	\$5,376 24
Repairs and Renewals of Passenger Cars.....	573 12		573 12
Repairs and Renewals of Freight Cars.....		4,206 96	4,206 96
Total.....	\$ 3,657 47	\$6,498 85	\$10,156 32
Conducting Transportation :			
Wages of Enginemen, Firemen, and Round-housemen.....	5,531 29	4,110 14	9,641 43
Fuel for Locomotives.....	9,247 82	6,871 80	16,119 62
Water-supply for Locomotives.....	251 84	187 13	438 97
All other Supplies for Locomotives.....	399 96	297 20	697 16
Wages of other Trainmen.....	2,566 24	7,237 75	9,803 99
All other Train Supplies.....	80 78	48 66	129 44
Expense of Telegraph, including Train Dispatchers and Operators.....	168 30	125 06	293 36
Wages of Station Agents, Clerks and Laborers.....	4,415 84	3,281 28	7,697 12
Station Supplies.....	711 65	528 80	1,240 45
Car Mileage—Balance.....	2,886 15	9,894 31	12,780 46
Loss and Damage.....	745 81	554 19	1,300 00
Total.....	\$27,005 68	\$33,136 32	\$60,142 00

OPERATING EXPENSES.—Continued.

Item.	Chargeable to Passenger Traffic.	Chargeable to Freight Traffic.	Total.
General Expenses :			
Salaries of Officers.....	\$3,410 40	\$2,534 17	\$5,944 57
Salaries of Clerks.....			
Agencies, including Salaries and Rent.....			
Advertising.....	234 65	174 37	409 02
Insurance.....	133 96	99 54	233 50
Legal Expenses.....	136 02	101 07	237 09
Stationery and Printing.....	488 53	363 02	851 55
Other General Expenses.....	919 08	682 95	1,602 03
Total.....	\$5,321 64	\$3,955 12	\$9,277 76
Recapitulation of Expenses :			
Maintenance of Way and Structures.....	\$16,407 44	\$12,191 90	\$28,599 34
Maintenance of Equipment.....	3,657 47	6,498 85	10,156 32
Conducting Transportation.....	27,005 68	33,136 32	60,142 00
General Expenses.....	5,322 64	3,955 12	9,277 76
Grand Total.....	\$52,393 23	\$55,782 19	\$108,175 42
Percentage of Operating Expenses to Earnings.....	56.02%		

RENTS PAID FOR LEASE OF OTHER PROPERTY.

This company leases the use of tracks, yard and depot at Brattleboro, of the Central Vermont Railroad Company—lessee of the New London Northern Railroad—at a rental of \$1,999.85.

Also, office at Springfield, Mass., of J. M. Cooley & Co., at a rental of \$87.50.

Total rentals paid..... \$2,087 35

GENERAL BALANCE SHEET.

Cost of Road.....	\$982,389 18
Cost of Equipment.....	63,048 84
Stocks of Other Companies owned.....	800,000 00
Cash and Current Assets.....	124,292 11
Total.....	\$1,969,730 13
Capital Stock.....	\$1,000,000 00
Funded Debt.....	800,000 00
Current Liabilities.....	45,032 75
Profit and Loss.....	9,380 64
" " Income Account.....	115,316 74
Total.....	\$1,969,730 13

CONTRACTS, AGREEMENTS, ETC.

American Express Co :

Express privileges, \$3,360.00 per annum.

U. S. Post-office Department :

Carrying mails, \$5,956.45 per annum.

SECURITY FOR FUNDED DEBT.

Class of Bond or Obligation.	WHAT ROAD MORTGAGED.			Amount of Mortgage Per Mile of Line.
	From	To	Miles.	
First Mortgage.	Brattleboro, Vt.	Bellows Falls, Vermont....	24	\$33,333.33

PASSENGER, FREIGHT, AND TRAIN MILEAGE.

Item.	Column for Tonnage, Num- ber Passengers, Number Trains, Mileage, Number Cars.	COLUMN FOR REV- ENUE AND RATES.		
		Dollars.	Cts.	Mills.
Passenger Traffic :				
Number of passengers carried earning revenue.....	116,402			
Number of passengers carried one mile.....	2,464,506			
Average distance carried....	21.1			
Total passenger revenue.....		80,292	34	
Average amount received from each passenger.....			68	978
Average receipts per passen- ger per mile.....			03	257
Estimated cost of carrying each passenger one mile....			02	125
Passenger earnings per mile of road.....		3,345	51	416
Passenger earnings per train- mile.....		1	25	85
Freight Traffic :				
Number of tons carried of freight earning revenue....	457,618			
Number of tons carried one mile.....	10,577,035			
Average distance haul of one ton.....	23.1			
Total freight revenue.....		101,332	11	
Average amount received for each ton of freight.....			22	143
Average receipts per ton per mile.....			00	958
Estimated cost of carrying one ton one mile.....			00	527
Freight earnings per mile of road.....		4,222	17	125
Freight earnings per train- mile.....		2	13	758
Passenger and Freight :				
Passenger and freight earn- ings.....		181,624	45	
Passenger and freight earn- ings per mile of road.....		7,567	68	541
Expense per mile of road....		4,507	30	916
Total earnings per mile of road, including Mails, Ex- press, etc.....		8,045	24	291

PASSENGER, FREIGHT, AND TRAIN MILEAGE.—Continued.

Item.	Column for Tonnage, Num- ber Passengers, Number Trains, Mileage, Number Cars.	COLUMN FOR REV- ENUE AND RATES.		
		Dollars.	Cts.	Mills.
Number of passenger trains.	26,583			
Number of freight trains...	19,752			
Train Mileage :				
Miles run by passenger trains	63,800			
Miles run by freight trains..	47,405			
Total Mileage Trains Earning Revenue.....	111,205			
Miles run by switching trains	23,267			
Miles run by construction and other trains.....	6,674			
Grand Total Train Mileage..	141,146			
Average number of loaded cars in train.....	21			
Average number of tons of freight in train.....	231.68			
Average number of tons of freight in each loaded car.	11.03			

DESCRIPTION OF EQUIPMENT.

Item.	Total Number at End of Year.	EQUIPPED WITH TRAIN BRAKE.		CARS FITTED WITH AUTOMATIC COUPLER.	
		No.	Kind.	No.	Kind.
Locomotives :					
Passenger.....	2	2	Westingh'se		
Freight.....	3				
Switching.....	1				
Total.....	6	2			
Cars in Passenger Ser- vice:					
First-class Passenger Cars.....	1	1	Westingh'se	1	Miller.
Baggage, Express and Postal Cars.....	1	1	"	1	"
Total.....	2	2		2	
Cars in Freight Service:					
Box Cars.....	17				
Flat Cars.....	4				
Other Cars.....	7				
Total.....	28				
Grand Total.....	30	2		2	

MILEAGE.

Line in Use.	Main Line Owned.	Total Mileage Operated.	RAILS.	
			Iron.	Steel.
Miles of Single Track.....	24	24		24
Miles of Second Track.....	2.50	2.50	1.94	.56
Miles of Yard Track, Sidings, and Spurs.....	1.18	1.18	1.18	
Total Mileage Operated (all tracks).....	27.68	27.68	3.12	24.56

MILEAGE OF LINE BY STATES AND TERRITORIES.

State or Territory.	Main Line Owned.	Total Mileage Excluding Trackage Rights.	Steel Rails.
Vermont	24	24	24
Total Mileage Operated (single track)	24	24	24

RENEWALS OF RAILS AND TIES.

NEW RAILS LAID DURING YEAR.

Kind.	Tons.	Weight Per Yard.	Average Price Per Ton at Distrib- uting Point.
Steel	160	72 pounds.	\$36 36
Total Steel	160	72 pounds.	\$36 36

NEW TIES LAID DURING YEAR.

Kind.	Number.	Average Price at Distributing Point.
Chestnut	14,091	43 cents.
Total	14,091	43 cents.

CONSUMPTION OF FUEL BY LOCOMOTIVES.

Bituminous coal used 3,817 tons: average cost at distributing point \$4.

Miles run, 141,146. Average pounds coal consumed per mile, 60.57.

ACCIDENTS TO PERSONS.

One trespasser killed and one injured at Stations.

CHARACTERISTICS OF ROAD.

Bridges :

Number Stone	3
Number Iron	4
Number Wooden	1

Tunnels :

Number	1
Maximum length	279 feet.
Minimum length	279 feet.
Aggregate length of all Tunnels	279 feet.

Gauge of Track : 4 feet, 8½ inches.

Telegraph :

Operated by the Western Union Telegraph Company. Length of line, 24 miles.

STATE OF MASSACHUSETTS, }
County of Hampden, } ss:

We, the undersigned, J. Mulligan, Superintendent, and W. H. Wilson, Auditor, of the Vermont Valley Railroad Company, on our oath do severally say that the foregoing return has been prepared, under our direction, from the original books, papers, and records of said Company; that we have carefully examined the same, and declare the same to be a complete and correct statement of the business and affairs of said Company in respect to each and every matter and thing therein set forth, to the best of our knowledge, information, and belief; and we further say that no deductions were made before stating the gross earnings or receipts herein set forth, except those shown in the foregoing accounts; and that the accounts and figures contained in the foregoing return embrace all of the financial operations of said Company during the period for which said return is made.

J. MULLIGAN, *Superintendent.*
W. H. WILSON, *Auditor.*

Subscribed and sworn to before me,
this 2d day of September, 1890.

GEORGE E. FRINK,
Justice of the Peace.

ANNUAL REPORT

OF THE

WOODSTOCK RAILROAD COMPANY.

FOR THE YEAR ENDING JUNE 30, 1890.

HISTORY.

Name of common carrier making this report : Woodstock Railroad Company.

Date of Organization : January 9, 1867.

Organized under the laws of Vermont.

Not a consolidated company.

ORGANIZATION.

Names of Directors.	Post-office Address.
Frederick Billings.....	Woodstock, Vt.
Lewis Pratt.....	Woodstock, Vt.
F. N. Billings.....	Woodstock, Vt.
F. S. Mackenzie.....	Woodstock, Vt.
Wm. C. Raymond.....	Burlington, Vt.
John J. Dewey.....	Quechee, Vt.

Post-office address of general office : Woodstock, Vt.

Post-office address of operating : Woodstock, Vt.

OFFICERS.

President—Frederick Billings.

Vice-President—F. N. Billings.

Secretary—Charles P. Marsh.

Treasurer—J. G. Porter.

Auditors—F. N. Billings and Lewis Pratt.

General and Traffic Manager—J. G. Porter.

General Passenger Agent—J. G. Porter.

General Superintendent—J. G. Porter.

General Baggage Agent—J. G. Porter.

PROPERTY OPERATED.

Name.	TERMINALS.		Miles of Line for Each Road Named.	Miles of Line for Each Class of Roads Named.
	From	To		
Woodstock R. R.	Woodstock.	White River Junction..	14	14

CAPITAL STOCK.

Description.	Total Par Value Authorized.	Total Amount Issued and Out- standing.
Capital Stock, \$260,000 : Common.	\$260,000 00	\$260,000 00

FUNDED DEBT.

Class of Bond or Obligation.	TIME.		Amount of Authorized Issue.	Amount Issued.
	Date of Issue.	When Due.		
First Mortgage.....	April 15, 1875	April 15, 1890	\$250,000 00	\$250,000 00

INTEREST.

Rate.	When Payable.	Amount Accrued. During Year.	Amount Paid During Year.
7%	April & October.	\$17,500 00	\$17,500 00

Bonds Issued :

Interest, semi-annually.

Interest guaranteed for fifteen years, which same expired April 15, 1890.

Net earnings applied in payment of interest on bonds. Deficit paid by Town of Woodstock.

CURRENT ASSETS AND LIABILITIES.

Cash and Current Assets Available for Payment of Current Liabilities.		Current Liabilities Accrued to and Including June 30, 1890.	
Balance—Current Liabilities.....	\$32,858 90	Loans and Bills Payable.....	\$32,858 90
Total.....	\$32,858 90	Total.....	\$32,858 90

Woodstock Railroad Company goes out of business with June, 1890, with a debt of \$32,858.90, with no assets.

COST OF ROAD AND EQUIPMENT.

Item.	Total Cost to June 30, 1889	Total Cost to June 30, 1890.
Construction.....	\$510,000 00	\$510,000 00
Total.....	\$510,000 00	\$510,000 00

No Equipment.

INCOME ACCOUNT.

Gross Earnings from Operation.....	\$26,886 44	
Less Operating Expenses.....	16,654 79	
Income from Operation.....	\$10,231 65	
Miscellaneous Income, less Expenses—Sale of Old Rails.....	\$1,216 04	
Total Income.....	\$11,447 69	
Deductions from Income:		
Interest on Funded Debt Accrued.....	\$17,500 00	
Deficit.....		86,052 31

EARNINGS FROM OPERATION.

Item.	Total Receipts.	Actual Earnings.
Passenger :		
Passenger Revenue.....	\$9,980 90	
Mail	716 08	
Express	720 00	
Total Passenger Earnings.....		\$11,416 98
Freight :		
Freight Revenue.....	\$15,469 46	
Total Freight Revenue.....		15,469 46
Total Passenger and Freight Earnings.....		\$26,886 44

RENTS PAID FOR LEASE OF OTHER PROPERTY.

Terminal facilities, White River Junction. \$800.00.

GENERAL BALANCE SHEET.

Cost of Road.....	\$510,000 00
Deficit continued from 1889, with Accrued Interest....	32,858 90
Total.....	\$542,858 90
Capital Stock.....	\$260,000 00
Funded Debt.....	250,000 00
Current Liabilities.....	32,858 90
Total.....	\$542,858 90

PASSENGER, FREIGHT, AND TRAIN MILEAGE.

Item.	Column for Tonnage, Num- ber Passengers, Number Trains, Mileage, Number Cars.	COLUMN FOR REV- ENUE AND RATES.		
		Dollars.	Cts.	Mills.
Passenger Traffic :				
Number of passengers carried earning revenue.....	16,774			
Number of passengers carried one mile.....	254,365			
Average distance carried....	15			
Total passenger revenue.....		9,980	90	
Average amount received from each passenger.....			59	5
Average receipts per passen- ger per mile.....			03	9
Passenger earnings per mile of road.....		712	92	
Passenger earnings per train mile.....			48	
Freight Traffic :				
Number of tons carried o' freight earning revenue..	13,802			
Number of tons carried one mile.....	169,090			
Average distance haul of one ton.....	12			
Total freight revenue.....		15,469	46	
Average amount received for each ton of freight.....		1	12	
Average receipts per ton per mile.....			08	
Freight earnings per mile of road.....		1,104	96	
Freight earnings per train-mile.....			75	
Passenger and Freight :				
Passenger and freight earnings.....		25,450	36	
Passenger and freight earnings per mile of road.....		1,817	88	
Expense per mile of road.....		1,189	62	
Total earnings per mile of road, including Mails, Express, etc.....		1,920	46	

PASSENGER, FREIGHT, AND TRAIN MILEAGE.—Continued.

Item.	Column for Tonnage, Num- ber Passengers, Number Trains, Mileage, Number Cars,	COLUMN FOR REV- ENUE AND RATES.		
		Dollars.	Cts.	Mills.
Number of passenger trains	Mixed Trains. 1,300			
Number of freight trains				
Number of mixed trains				
Train Mileage :				
Miles run by mixed trains...	20,500			
Total Mileage trains Earn- ing Revenue.....	20,500			
Miles run by switching trains	300			
Grand Total Train Mileage	20,800			

NEW TIES LAID DURING YEAR.

Cedar and Hemlock, 3,043. Average price at distributing point, 28 cents.

CONSUMPTION OF FUEL BY LOCOMOTIVES.

442 cords hard wood.

CHARACTERISTICS OF ROAD.

Bridges—Number Wooden, 1 Howe Truss.

Gauge of Track—4 feet, 8½ inches.

STATE OF VERMONT }
County of Windsor. } ss.

I, the undersigned, J. G. Porter, Treasurer of the Woodstock Railroad Company, on my oath do say that the foregoing return has been prepared, under my direction, from the original books, papers, and records of said Company. that I have carefully examined the same, and declare the same to be a complete and correct statement of the business and affairs of said Company in respect to each and every matter and thing therein set forth, to the best of my knowledge, information, and belief; and I further say that no deductions were made before stating the gross earnings or receipts herein set forth, except those shown in the foregoing accounts; and that the accounts and figures contained in the foregoing return embrace all of the financial operations of said Company during the period for which said return is made.

J. G. PORTER, *Treasurer.*

Subscribed and sworn to before me,
this 18th day of August, 1890,

LEWIS PRATT,

Notary Public.

APPENDIX.

THE
GENERAL LAWS OF
VERMONT,

RELATING TO RAILROADS,

BEING

CHAPTERS 154, 155, 156, 157 & 158 OF THE REVISED
LAWS OF 1880, AND ACTS PASSED AT SES-
SIONS OF THE GENERAL ASSEMBLY
IN 1882, 1884, 1886 & 1888.

RAILROADS.

CHAPTER 154.—General provisions.

CHAPTER 155.—Incorporation under general law.

CHAPTER 156.—Organization, stock, bonds and mortgages.

CHAPTER 157.—Construction and operation of the road.

CHAPTER 158.—Trustees and proceedings after foreclosure.

CHAPTER 154.

GENERAL PROVISIONS.

SECTION

3299. Railroad companies subject to this title
3300. To whom the provisions of this title apply.
3301. Adverse possession in railway gives no title.

SECTION

3302. State may purchase franchise and property.
3303. Contracts between companies ; corporate property.
3304. Rights and liabilities not affected.
3305. Legislative control.

SEC. 3299. Railroad companies organized or incorporated under the laws of this State shall be subject to the provisions of this title so far as consistent with their respective charters.

SEC. 3300. The provisions of this title which impose upon a railroad corporation any duty, obligation or liability, shall apply to persons having the possession, control or management of a railroad or of the engines and cars running thereon, as lessees, assignees, trustees or in any other capacity.

SEC. 3301. No person shall acquire a title to lands belonging to a railroad corporation, where such lands lie within the limits of the roadway of such corporation as recorded in the town clerk's office, by reason of any adverse possession thereof for more than fifteen years.

SEC. 3302. The state may, at any time during the continuance of the charter of a railroad corporation, after the expiration of twenty years from the opening of its railroad for use, purchase of the corporation the railroad, and the franchise, property, rights and privileges of the corporation, by paying it therefor such sum as will reimburse the amount of capital paid in, with a net profit thereon of ten per cent. per annum from the time of the payment thereof by the stockholders to the time of such purchase.

SEC. 3303. Railroad companies in this State may make contracts and arrangements with each other, and with railroad corporations incorporated under the laws of other of the United States, or under the authority of the government of Canada, for leasing and running the roads of the respective corporations, or a part thereof, by either of their respective companies; and may contract for and hold in fee-simple, or otherwise, lands or buildings in this or other States for depot purposes and storing freight; and may purchase and hold such personal property as is necessary and convenient for carrying into effect the object of this section.

SEC. 3304. Nothing in this title shall affect rights or liabilities accrued previous to December first, A. D. 1850.

SEC. 3305. The provisions of this title shall at all times be subject to alteration, amendment or repeal by the General Assembly.

CHAPTER 155.

INCORPORATION UNDER GENERAL LAW.

SECTION		SECTION	
3306.	Articles of association.	3317.	Record required before taking land.
3307.	Subscribing to articles.		INCREASE OF CAPITAL STOCK.
3308.	Articles to be filed and recorded.	3318.	Stock may be increased; sanction required.
3309.	Subscribers and stockholders a corporation; powers.	3319.	Notice of meeting to sanction.
3310.	Change of location.	3320.	Proceedings to be minuted; certified copy to be recorded.
3311.	Effect of such change; change to be filed.		GENERAL PROVISIONS.
3312.	Opening books of subscription; first payment.	3321.	Copies of articles and affidavit made evidence.
3313.	One vote to a share; proxies.	3322.	This chapter not to apply to horse-railroads.
3314.	Railroads cannot subscribe.	3323.	Legislative control.
3315.	Majority of directors to reside in this State.		
3316.	Building of road, when to be begun and completed.		

SEC. 3306. Any number of persons not less than twenty-five, a majority of them being inhabitants of this State, may form a company for the purpose of constructing, maintaining and operating a railroad for public use in conveyance of persons and property; and for that purpose may make and sign articles of association, stating the name of the company, which shall be a name not in use by another railroad company in the State, the places from and to which the road is to be constructed or maintained and operated, the length of such road as near as may be, and the name of each town and county through or into which it is made, or intended to be made; the amount of the capital stock of the company, which shall be divided into shares of one hundred dollars each, and shall not be less than ten thousand dollars for every mile of road constructed or proposed to be constructed, and the number of shares of which said capital stock shall consist; and the names and places of residence of the directors of the company, who shall be chosen from and by the persons subscribing to said articles of association, and shall manage its affairs for the first year and until others are chosen.

SEC. 3307. Each subscriber to the articles of association shall subscribe thereto his name, place of residence, and number of shares of stock he agrees to take in the company; but

no subscriber shall be bound to pay beyond ten per cent. of the amount of his subscription until a corporation is established under the provisions of this chapter.

SEC. 3308. When at least five thousand dollars of stock for every mile of the first twenty miles, if there are so many, of railroad proposed to be made is subscribed thereto, and one thousand dollars for every mile thereafter, and ten per cent. paid thereon in good faith and in cash to the directors named in the articles of association, and there is endorsed on such articles or annexed thereto, an affidavit made by a majority of the directors named therein, that such amount of stock has been in good faith subscribed, and ten per cent. paid in cash thereon as aforesaid, and that it is intended in good faith to construct or maintain and operate such railroad, such articles of association with the endorsement and affidavit may be filed in the office of the Secretary of State, who shall endorse thereon the date when the same were filed and shall record the same in a book to be kept for that purpose in his office.

SEC. 3309. When the articles of association are thus filed the persons who have so subscribed and persons who become stockholders in the company, shall be a corporation in fact and in name, by the name specified in such articles; and as such may have succession by such corporate name for the period limited in such articles, or perpetually if no period is limited; may sue and be sued, complain and defend in courts of law or equity; may make and use a common seal, and alter the same at pleasure; may lay out, construct and maintain, for public use in the conveyance of persons and property, a railroad on the line designated in such articles of association; may take, hold, purchase, use and convey such real and personal estate as is necessary for the construction, maintenance and accommodations of such railroad, and its necessary structures, and as the purposes of the corporation require, not exceeding the amount, if any, limited in such articles or its by-

laws ; may take and convey persons and property on such railroad by the power of steam or of animals, or by any mechanical power, and receive compensation therefor, subject to the regulations provided by law ; may erect and maintain convenient and necessary buildings, stations, fixtures and machinery for the accommodation of the passengers, freights and business on such railroad ; may regulate the time and manner in which passengers and property shall be transported on such railroad, subject to regulations provided by law ; may appoint such subordinate officers and agents as the business of the corporation requires, and allow them a suitable compensation ; and may make by-laws, not inconsistent with law, for the management of the property of the corporation, the regulation of its affairs, and the transfer of its stock ; and shall be deemed to be a railroad company or corporation, incorporated under the authority of the State, and as such shall have the powers, rights, franchises and privileges granted to or vested in railroad companies or corporations by law, and shall be subject to the provisions of law which affect railroad companies or corporations.

SEC. 3310. In the final location of such railroad a necessary or reasonable change of line may be made, although by such change the line passes into towns not named in the articles of association, or does not pass through some of those named in such articles, while the general route and direction and the terminal points mentioned are observed ; but such change in the line shall not be made by the company if it violates the conditions of the vote of a town, or of some subscription to render aid in the construction of such railroad, unless the assent of such town or of the party making such condition or subscription is first obtained.

SEC. 3311. The description of route made on the preliminary survey for such railroad, notwithstanding such necessary or reasonable change of line in the final location, shall be deemed a sufficient compliance with this chapter ; and such

change of line shall not invalidate the articles of association of such company, and the route, as changed, shall be filed with the Secretary of State as an amendment of the original articles of association.

SEC. 3312. When such articles of association and affidavit are filed and recorded in the office of the Secretary of State, as aforesaid, the directors may, if the whole of the capital stock of the company is not subscribed, open books of subscription to fill up the capital stock in such places and after giving such notice as they deem expedient, and may continue to receive subscriptions until the whole capital stock is subscribed. At the time of subscribing, every subscriber shall pay to the directors ten per cent of the amount subscribed by him in money; and no subscription shall be received or taken without such payment.

SEC. 3313. Every holder of stock in a company organized under this chapter shall be entitled to one vote, in person or by proxy, on each share of stock held by him.

SEC. 3314. No other railroad corporation shall subscribe for, take, or hold, directly or indirectly, stock or bonds of a railroad corporation organized under this chapter, unless specially authorized by the legislature.

SEC. 3315. A majority of the directors of a railroad established under this chapter shall be inhabitants of the State.

SEC. 3316. If a corporation formed under this chapter does not, within eighteen months after its articles of association are filed in the office of the Secretary of State, begin the construction of its railroad and expend thereon five per cent of the amount of its capital stock, or does not finish its railroad and put it in operation in seven years from the time of filing its articles of association, its corporate existence shall cease, except as to so much of the road as has been completed.

SEC. 3317. Before a company formed under this chapter commences proceedings, for the purpose of acquiring title to real estate, or an interest therein, it shall cause a copy of the

record of its articles of association, and of the affidavit endorsed thereon or annexed thereto, made in the office of the Secretary of State, and certified to be a true copy by the Secretary of State, to be filed and recorded in the office of the county clerk in the county in which such real estate is situated. This section shall not prevent a company from taking and holding voluntary grants of real estate made to it, to aid in the construction, maintenance and accommodation of its railroad ; but such real estate shall be held and used for the purposes of such grant only.

INCREASE OF STOCK.

SEC. 3318. If the capital stock of a company formed under this chapter is found to be insufficient for constructing and operating its railroad, the company may increase the stock from time to time to any amount required for the purposes aforesaid ; but such increase must be sanctioned by a vote of two-thirds in amount of all the stock represented, at a meeting of the stockholders called by the directors of the company for that purpose.

SEC. 3319. Notice in writing of such meeting shall be given to each stockholder personally or be addressed to him by mail post-paid, at the post office nearest his usual place of residence, at least ten days prior to the meeting. The notice must state the time and place of the meeting, and its object and the amount to which it is proposed to increase the capital stock.

SEC. 3320. The proceedings of such meeting shall be entered in the minutes of the proceedings of the company, and a copy of the record thereof, certified by the president and clerk and a majority of the directors of the company, shall be filed and recorded in the office of the Secretary of State ; and thereafter the capital stock of the company may be increased to the amount sanctioned by such vote.

GENERAL PROVISIONS.

SEC. 3321. A copy of the articles of association, and of the affidavit endorsed thereon or annexed thereto as aforesaid, filed and recorded in the office of the Secretary of State, or of the record of the articles of association and affidavit certified to be a copy by the Secretary of State, shall be presumptive evidence in any court of the incorporation of the company, and of the facts therein stated; and a copy of the record of the same made in the office of the county clerk, as provided in this chapter, certified to be a copy by the county clerk, shall have the same effect as evidence in the courts of the county.

SEC. 3322. Nothing in this chapter shall relate to horse railroads.

SEC. 3323. The legislature may alter, amend or repeal this chapter or any part thereof, or may annul or dissolve a corporation formed under it; but such alteration, amendment, repeal, annulment, or dissolution, shall not impair a remedy given against such corporation, its stockholders or officers, for liabilities previously incurred.

CHAPTER 156.

ORGANIZATION, STOCK, BONDS AND MORTGAGES.

SECTION

3324. Railroad company a corporation as soon as chartered.
 3325. Route to be designated in charter.
 3326. Opening books for subscription.
 3327. Stock distributed if subscription exceed it.
 3328. First payment; security for further payment.
 3329. Subscriptions to be absolute.
 3330. Subscribers are members; right to vote.

GOVERNMENT, MEETINGS AND ELECTION OF OFFICERS.

3331. Board of directors.
 3332. Election of first board.
 3333. Directors to be elected annually.
 3334. Not elected on day fixed, further time given.
 3335. Meetings how called and notified.
 3336. President, clerk, and treasurer; official bonds. Majority of board may act.
 3337. Name and place of business of clerk and treasurer, to be returned to Secretary of State.
 3338. Offices and books to be kept in this State; penalty.

PREFERRED AND GUARANTEED STOCK AND INCREASE OF STOCK.

3339. Preferred stock; issue, how ordered.

SECTION

3340. Notice of meeting for ordering issue.
 3341. Original stockholders have first right to take.
 3342. Holders of such stock can vote or hold office.
 3343. Guaranteed stock may be issued, when.
 3344. In increasing stock shares to be sold at par.

SHARES AND ASSESSMENTS THEREON.

3345. Shares are personalty; transfers; attachment and levy.
 3346. Assessments; how notified.
 3347. Sale of shares to pay assessments.
 3348. Stockholder, liable for deficiency; entitled to surplus.
 3349. Purchaser liable for subsequent assessments.

ISSUE OF BONDS.

3350. Company may issue and secure bonds.
 3351. Bonds binding though sold at less than par.

MORTGAGES AND LEASES.

3352. Recording; copies.
 3353. Mortgages of franchise and rolling stock.

SEC. 3324. A railroad corporation shall be a body corporate and politic, from the passing of the act of incorporation, so far as to authorize such corporation, after its organization, to enforce the payment of subscriptions to its capital stock, and the performance of contracts for the conveyance of real estate for the purposes of the road, although such subscriptions and contracts may have been made prior to the organization.

SEC. 3325. Every act of incorporation of a railroad company shall confine the road within the limits indicated by the notice required in section 119 [§ 129], shall specify the towns through which it may pass, and shall further designate the route on which the road is to be made with as much certainty as possible in each case.

STOCK SUBSCRIPTIONS AND VOTES.

SEC. 3326. The commissioners for opening books of subscription, named in an act of incorporation, shall, from time to time, after the company is incorporated, open books of subscription to the capital stock of the company, in such places, and after giving such notice, as a majority of them direct, which books shall be kept open until the capital stock is subscribed, if the corporation exists so long.

SEC. 3327. If more stock is subscribed than the whole capital stock of the company, the commissioners shall distribute such capital stock as equally as possible among the subscribers, but no share shall be divided, nor shall a greater number of shares be allotted to a subscriber than he has subscribed for.

SEC. 3328. A person subscribing for stock shall pay to the commissioners, at the time of subscribing, five per cent on the amount of stock subscribed by him, and shall, if required by the commissioners, give security to their satisfaction for the payment of fifteen dollars more on each share, in such instalments as are ordered by the company.

SEC. 3329. Subscriptions for stock shall be payable absolutely, and no secret agreement, nor any understanding or condition not inserted in the terms of the subscription, shall affect the right of the corporation to enforce payment thereof.

SEC. 3330. Each subscriber for stock shall be a member of the company and at all meetings thereof shall be entitled to one vote for each share of stock held by him; but he shall not vote for any shares beyond one-tenth part of the whole number of shares of stock of the corporation.

GOVERNMENT, MEETINGS, AND ELECTION OF OFFICERS.

SEC. 3331. The immediate government of the affairs of such corporation shall be vested in a board of not less than five directors, who shall be chosen by the members of the corporation, and shall hold their offices until others are elected.

SEC. 3332. As soon as practicable after the stock or such portion thereof as is prescribed in the act of incorporation, is subscribed, the commissioners to receive subscriptions shall give at least ten days' notice for the meeting of the stockholders, at such time and place as they appoint, for the choice of directors, by publishing the same in such newspapers as they direct; and such elections shall then be made by ballot by the stockholders who attend either in person or by proxy. The commissioners shall be inspectors of the first election of directors, shall openly count the votes and declare the result, and shall certify the names of those duly elected, and deliver to said directors the moneys received by such commissioners on subscriptions to the capital stock, and the books and papers in their possession relating to such subscriptions. The time and place for the first meeting of the directors shall be fixed by the commissioners.

SEC. 3333. A new election of directors shall be made annually, at such time and place, and upon such notice as is designated in the by-laws of the corporation; but if the by-laws contain no provisions upon the subject, then at such time and place, and upon such notice, as the directors designate.

SEC. 3334. If an election of directors is not made on the day designated in the by-laws of a railroad company, the company for that reason shall not be dissolved if within ninety days thereafter it holds an election for directors in such manner as is provided for by the by-laws.

SEC. 3335. Meetings shall be called and notified as provided in the by-laws of the corporation.

SEC. 3336. The directors shall elect one of their number to be president of the board, who shall also be president of the corporation; and they may choose a clerk, who shall be sworn, and a treasurer, and such subordinate officers as the company by its by-laws designates, who shall give bonds to the corporation, in such sum as is required by the by-laws, for the faithful discharge of the duties of their offices. A majority of the

directors shall form a board, and may transact the business of the company.

SEC. 3337. Railroad corporations shall, on the first day of January of each year, lodge with the Secretary of State the names of their clerks and treasurers, and their place of business within this State.

SEC. 3338. The treasurer and clerk of the railroad corporation shall be residents of this State except when otherwise specially provided by law; and the offices of the treasurers and clerks, and the books and papers belonging to said offices shall be kept in the State, except when temporarily removed and detained without the State by order of a judge of the supreme court, to be used in evidence in suits actually pending in a neighboring State, and in such case to be detained only during the term of court at which such suit is to be tried; and if a railroad corporation neglects to comply with the provisions of this section it shall, for every day's neglect, forfeit to the State ten dollars, to be recovered in an action on the case upon this statute in any county in the name of the treasurer of the State who shall prosecute for the same.

PREFERRED AND GUARANTEED STOCK AND INCREASE OF STOCK.

SEC. 3339. A railroad company may issue preferred capital stock, in shares of not less than fifty dollars each, to have preference over the common capital stock of such company, in dividends to be made out of the profits of the business, not exceeding seven per cent per annum for the purpose of paying, discharging, retiring, or exchanging an outstanding claim, lien, mortgage or incumbrance against such company, upon its property, if the stockholders thereof, at a meeting called for that purpose, by a vote of at least two-thirds in amount of the shares of such company represented or voted upon at such meeting, order such issue.

SEC. 3340. Notice of such meeting shall be published once a week for three successive weeks, in a newspaper published in the town of St. Albans, and in a newspaper published in the town of Rutland, and for six successive days in one or more dailies published in each of the cities of New York and Boston.

SEC. 3341. The original stockholders in such corporation shall have the first right to take such preferred stock in proportion to the amount of original stock owned by them.

SEC. 3342. The holders of such preferred stock shall have the same right to vote at stockholders' meetings as the holders of the common stock of said company, and shall be equally qualified to be officers thereof.

SEC. 3343. Railroad corporations, for the purpose of building or furnishing their respective roads, or the payment of their just debts, may, when authorized so to do by a vote of the stockholders at a meeting called for that purpose, issue stock, guaranteeing thereon a certain dividend not exceeding eight per cent. per annum, for such term of time as they deem expedient; and such guaranty shall be binding on the corporation.

SEC. 3344. No railroad corporation, authorized by its charter to increase its capital stock, shall issue shares for a less amount to be paid in on each, than the par value of the shares in the original stock of the corporation, unless all the stockholders in the corporation agree, in writing, that such shares may be issued for a less sum.

SHARES AND ASSESSMENTS THEREON.

SEC. 3345. The shares in the capital stock of a railroad corporation shall be personal estate, and may be transferred by any conveyance in writing, as provided by the by-laws of the corporation, and shall be liable to attachment and sale under legal process, as provided by law for the attachment and

sale, under process, of the shares of capital stock of private corporations.

SEC. 3346. The president and directors of a railroad corporation may, from time to time, make such equal assessments on the shares in the corporation as they deem necessary for the purposes of the corporation, but not to a greater amount than the sum at which the shares are fixed by its charter, or by the vote or agreement of the stockholders, and may direct the same to be paid to the treasurer, who shall give notice thereof to the stockholders, either personally or by letter through the mail, or by publication in such newspaper as the directors designate.

SEC. 3347. If a stockholder does not pay his assessments, for thirty days after such notice, the directors may order the treasurer, after giving notice of the sale, to sell the shares of such person at public auction to the highest bidder, and the same shall be transferred to the purchaser.

SEC. 3348. If such shares do not sell for a sum sufficient to pay the assessment, with interest and charges of sale, the delinquent stockholder shall be liable to the corporation for the deficiency; and if they sell for more than the assessment, so due, with interest and charges of sale, he shall be entitled to the surplus remaining after the sale.

SEC. 3349. The purchasers and owners of the shares so purchased shall be liable for subsequent assessments thereon, and payment thereof may be enforced as above provided.

ISSUE OF BONDS.

SEC. 3350. A railroad corporation, if it so votes at a meeting of its stockholders called for that purpose, may issue its notes or bonds in sums not less than one hundred dollars to raise money or to extinguish any debt or liability of the company, on time not to exceed thirty years, and at a rate of interest not to exceed seven per cent, and may secure them

by a mortgage of its road or other property which it owns and any interest in railroad property.

SEC. 3351. Bonds or notes issued by such corporation or by the trustees and managers of railroad property shall be binding and collectible in law although negotiated and sold by such corporation or trustees and managers at less than par.

MORTGAGES AND LEASES.

SEC. 3352. Mortgages and leases of railroads, and assignments thereof, shall be recorded in the office of the clerk of each county through which the road passes, instead of the offices of the town clerks, and the same when so recorded, and copies of such records, shall have the same effect as if recorded in the offices of the town clerks of the towns through which such road passes.

SEC. 3353. Mortgages of railroad franchises, furniture, cars, engines, and rolling stock, when properly executed and recorded, shall vest in the mortgagee a mortgage interest in and lien upon such property, without delivery or change of possession; and for the purpose of mortgage, all such property shall be deemed part of the realty. But this section shall not prevent such furniture, cars, engines, and rolling stock from being attached by a person having a claim against the corporation owning such property, for an injury sustained on its road, by negligence of the corporation, or for services rendered, or materials furnished to keep said road in repair or to run the same, or for liabilities as common carriers, or for the loss of property while in the possession of said corporation; and such property, when so attached, may be taken, held, and disposed of as though said property had not been mortgaged.

CHAPTER 157.

CONSTRUCTION AND OPERATION OF THE ROAD.

SECTION

3354. Entry upon lands for preliminary survey.
3355. Location of road to be recorded.

RIGHT TO TAKE LAND.

3356. Land, materials and water for road.
3357. Land for depot accommodations.
3358. Land without the road limits.

APPRAISAL OF DAMAGES.

3359. Appointment of commissioners.
3360. Notice of time and place of appraisal.
3361. Description of land and property.
3362. What estates in same land appraised separately.
3363. Notice and statement of appraisal; record.
3364. Payment or deposit of damages conveys property.
3365. If owner is a married woman, infant, idiot or lunatic.
3366. Appeal to county court.

PROCEEDINGS IN CHANCERY RESPECTING DAMAGES.

3367. Petition to chancellor; order to deposit damages.
3368. Notice required before final decree.
3369. Deposit of damages; sum invested.

OBSTRUCTION TO PRIVATE WAY.

3370. Damages, to be paid; how ascertained.

RIGHT OF ACTION ON NON-PAYMENT OF DAMAGES, &c.

3371. Suit when property is taken without appraisal.
3372. Security from contractor; liability for wages.

CHANGES IN LOCATION.

3373. Changes may be made; to be recorded.
3374-3376. Land damages; reversion of land.

RIGHT TO ALTER HIGHWAY OR TURNPIKE.

3377. Laying road upon turnpike, way or bridge.
3378. Altering course of turnpike or way at crossing.
3379. Alterations to be recorded.
3380. Taking additional lands for such alterations.

SECTION

CROSSING HIGHWAYS OR TURNPIKES.

3381. Turnpike or way crossing railroad.
3382. Railroad crossing turnpike or way.
3383. Repairs at crossing; liability for damage.
3384. When town may make repairs and recover expense.
3385. Contract between town and company, not affected.

SIGN BOARDS AT CROSSINGS.

3386. Sign boards to be kept at crossings.
3387. Bell to be rung or whistle blown.
3388. Penalty for violation of §§ 3386, 3387.

UNSAFE CROSSING.

3389. Petition and service; commissioners.
3390. Proceedings by commissioners and court.

OBSTRUCTING CROSSINGS.

3391. Fine for obstructing with engines or cars.
3392. For not opening freight trains stopped on crossing.
3393. Company not to leave nuisance in highway.
3394. Liable for damages occasioned.
3395. Fine for leaving such nuisance.
3396. For obstructing sight of cars at crossing.
3397. For not removing such obstruction on notice.

CROSSING OR CONNECTING WITH ANOTHER RAILROAD

3398. Railroads may cross or unite; compensation, points and manner.
3399. Terms of business connection.
3400. Appointment of commissioners; hearing and award.
3401. Reporting award to court; award confirmed, binding.
3402. Making connecting and competing road a party.
3403. Enforcing award; costs.
3404. Calling special term of court; judges' pay.

STOPPAGE OF TRAINS AT CROSSING.

3405. Engineman to stop engine and sound whistle.
3406. Engineman and company fined for non-compliance.

SECTION

FARM CROSSINGS, CATTLE-GUARDS.

3407. Company shall construct and maintain.

3408. Commissioners, when parties disagree,

FENCES.

3409. Company to keep its road fenced.

3410. Or fence may be made at company's expense

3411. Provision when land owner is to keep fence.

3412. Damage to animals on railroad.

3413. Penalty for driving animal within fences.

3414. For allowing animal to be at large in roadway.

3415. Complaints as to fences, guards, crossings, &c.

3416. Orders of commissioners.

3417. Penalty for not complying.

BRIDGES.

3418. Width and height of bridge.

3419. Ladders or steps to top of car.

3420. Penalty for not complying.

3421. How enforced.

MAINTENANCE OF STATIONS.

3422. Locating depots.

3423. Abandoning depot or diminishing accommodations.

3424. Removing or discontinuing depot.

3425. Enjoining violation of two preceding sections.

TOLLS.

3426. Fixed by company; how altered or reduced.

3427. Not to be more for less distance than for greater.

SECTION

UNITED STATES MAIL.

3428. Terms for carrying, how determined.

REGULATIONS RESPECTING THE RUNNING OF THE ROAD.

3429. Brakes for passenger trains.

3430. Fine for not complying.

3431. Badges.

3432. Checks for baggage.

3433. Forming passenger trains.

3434. Putting passenger off.

3435. Fine for refusing to pay fare

3436. Penalty for running out of time.

3437. Company to post up copies of preceding section.

3438. Only company's engines to be run on road.

3439. Rate of speed at passenger depot.

3440. Use of intoxicating liquors by employees.

3441. Engineer or conductor fined for intoxication.

3442. Negligence of employee, how punished.

3443. Property held for injuries on road.

3444. Damages by fire communicated by engine.

3445. Double damages for injuring road or property.

RAILROAD POLICE.

3446. Appointment of commissions.

3447. Duration of office.

3448. Badges.

3449. Arrests; offenders, where tried.

3450. Pay of police; liability for misconduct.

3451. Fine for loitering about station house.

3452. Minors boarding train or loitering about yard or station.

SURVEY AND LOCATION.

SEC. 3354. A railroad corporation may cause such examinations and surveys for the proposed railroad to be made, as are necessary to the selection of the most advantageous route; and for such purpose, by their officers, agents and servants, may enter upon lands or waters of a person, but subject to responsibility for damages which they shall do thereto; but they shall make no entry for other purposes without the consent of the owner, until the damages are agreed upon by the parties, or ascertained and paid to the owner, or deposited as hereinafter directed.

SEC. 3355. Before a railroad corporation commences proceedings for the purpose of acquiring title to real estate or an interest therein, and within two years from passing its act of incorporation, it shall cause the location of its road signed by a majority of the directors, defining the courses, distances and boundaries of the same in each town through which it passes, to be recorded in the respective town clerk's offices of said towns; and if the road passes through a gore or unorganized township, the location shall be recorded in the office in which conveyances of real estate situated in such gore or unorganized township are required by law to be recorded.

RIGHT TO TAKE LAND.

SEC. 3356. A railroad corporation may lay out its road, not exceeding five rods wide, and may purchase or otherwise take lands or materials necessary for making or securing its railroad, and such water and in such quantity as is required for the uses of the road, with the right of entering upon the land and constructing and keeping in repair necessary aqueducts. But it shall not take otherwise than by purchase water or a spring of water which the owner requires for the reasonable and convenient use of his premises; and if the owner and the corporation cannot agree as to what water is necessary for such use, the corporation shall apply to commissioners to determine the same before taking such water and give the owner twelve days' notice in writing of the time and place when the application will be heard.

SEC. 3357. A railroad corporation may enter upon and take lands necessary for depot accommodations as provided by law and its act of incorporation.

SEC. 3358. No land without the limits of its road shall be taken by a railroad corporation for the requisite and convenient accommodation of its road, without the permission of the owner thereof, unless the commissioners, on the application of the corporation, and after twelve days' notice to the

owner, first prescribe the limits within which such land shall be taken.

APPRAISAL OF DAMAGES.

SEC. 3359. When a railroad corporation has not acquired, by gift or purchase, land, real estate or property, taken or required for the construction, maintenance and convenient accommodation of its road, and if the parties do not agree as to the price of such lands and other property, any two judges of the supreme court, upon application for that purpose by the corporation, shall appoint three disinterested commissioners, one of whom shall be an inhabitant of the town and all shall be inhabitants of the county in which the land or other property to be appraised is situated, to determine the damages which the owners of such lands or property have sustained by the occupation of the same for the purposes aforesaid.

SEC. 3360. The commissioners shall give twelve days' notice to the occupants or owners of the lands of the time and place when and where they will attend to such appraisal, but no notice shall be required to be given of the appraisal of unoccupied lands, unless the owner resides in the State, or has some known agent or attorney residing therein; and if the owner does not reside in the State, and has a known agent or attorney residing therein, the same notice shall be given to the agent or attorney as is directed to be given to the owner or occupant.

SEC. 3361. At least ten days before an appraisal is made by the commissioners, the corporation shall deliver to the owner, or deposit in the town clerk's office in the town in which the same is situated, a plan or description in writing of the land or property so taken.

SEC. 3362. When a railroad corporation takes lands subject to dower, or to an estate for life or years, the commissioners shall appraise the damages to such right of dower, or

other estate for life, or for years, and also the damages to the reversionary interest.

SEC. 3363. When an appraisal is made, the commissioners shall within twenty days notify the owner, if known, of the amount thereof, and deliver to the company a written statement of the same, with a description of the land or other property so by them appraised; which within thirty days thereafter the company shall cause to be recorded in the town clerk's office of the town where the lands or other estate lie.

SEC. 3364. Upon the payment of the damages determined upon by the commissioners, with the costs and charges thereupon accruing, by the company, or upon the deposit of the same by the company in such bank, or with such clerk of the supreme court as the commissioners direct, to the credit of the person to whom the damages have been awarded, such bank or clerk giving notice personally, or by letter through the post office, to such persons that such deposit has been made, the company shall be deemed to be seized and possessed of the land or other property appraised by the commissioners.

SEC. 3365. If the owner of the lands or estate is a married woman, an infant, idiot, or insane, or does not reside in this State, or is not known, the company shall cause the damages sustained by such owners to be determined in the manner above prescribed, and shall pay the same to the lawful owners when demanded, with interest thereon, which damages and interest shall be a specific lien upon the real estate of such company, and be preferred before any other demand against said company.

SEC. 3366. If the company, or the owner of land or property is dissatisfied with the decision of the commissioners, either party may, within ninety days after the date of award, appeal to the county court; and such court shall thereupon appoint three commissioners, one of whom shall be an inhabitant of the county in which such land or property is situated;

and the decision of the court shall be final upon the report of said commissioners, and costs may, in the discretion of the court, be allowed to either party. But no appeal shall be taken by the corporation after deposit of the amount of the award, nor shall an appeal be taken by the landholder or owner after acceptance thereof.

PROCEEDINGS IN CHANCERY RESPECTING DAMAGES.

SEC. 3367. When a railroad corporation requires for roadway or building materials lands whose owner is unknown, or where there are conflicting claims to the title, or where such lands are encumbered by mortgages, attachments, or the levy of executions, or otherwise, such corporation, after having the damages appraised by the commissioners, may apply by petition to a chancellor, and such chancellor may, in his discretion, order the damages awarded by the commissioners to be deposited with the clerk of the court, or in a bank in the county where the land is situated, subject to the order of such person as the chancellor decides to be entitled to the same, or subject to the future order of a chancellor.

SEC. 3368. No final decree shall be made in such case until reasonable notice has been given to persons interested, when they are known and reside in the State, of the filing of the petition; and when the owners are unknown or reside without the State, such notice shall be given as the chancellor orders, by publication or otherwise.

SEC. 3369. On the deposit of the damages under the order of a chancellor, the title to the land shall vest in the corporation, subject to the right of appeal as in other cases; and if the sum so deposited remains for six months undemanded, a chancellor may order the same invested for the benefit of those interested.

OBSTRUCTION TO PRIVATE WAY.

SEC. 3370. When a railroad corporation in laying out, building, grading or making its road, obstructs the travel or

means of access to a manufactory, mill, place of business or dwelling house, the corporation shall be liable to pay to the person thereby injured such reasonable compensation as the commissioners for determining railroad damages deem proper. The person so claiming to be damaged may apply in writing to the commissioners, setting forth such damage; and such application, with a notice from the commissioners to the corporation of the time and place of hearing, shall be served on the corporation according to law.

RIGHT OF ACTION ON NON-PAYMENT OF DAMAGES OR DE-
FAULT OF CONTRACTORS.

SEC. 3371. When a railroad company has entered upon and used land and real estate for the construction and accommodation of its railroad; and has, by its engineers, agents, or servants, entered upon land contiguous to the railroad, or the works connected therewith, and taken materials to use in the construction of its road, and has not paid the owner therefor, nor, within two years from such entry, had the damages appraised by commissioners, and an award made and delivered, a person claiming damages in such case may bring suit therefor, within six years after such entry, before a justice if the claim is not over two hundred dollars, otherwise in the county court; and a plea or notice of justification of the entry under the act incorporating the company, shall not bar the suit, but the plaintiff shall recover only his actual damages.

SEC. 3372. A railroad company shall require sufficient security from the contractors for the payment of labor performed in constructing the road by persons in their employ; and such company shall be liable, to the day laborers employed by the contractors, for labor actually performed on its road, if the person having such claim shall, in writing, within forty days after the performance of the labor, notify the engineer in charge of the section on which the labor was performed, that he has not been paid by the contractors.

CHANGES IN LOCATION.

SEC. 3373. A railroad corporation, after taking land for a portion of its road, may vary the direction of the road in the place where such land is situated, provided it does not thereby locate its road, or part thereof, without the limits prescribed by its act of incorporation; and it shall, before the time required by law for completing the road, file the location of the different parts of the road, when such variations are made, with the town clerks of the respective towns where such parts are situated, who shall record the same.

SEC. 3374. When a railroad corporation has paid, or become liable to pay, land damages for the location of its road, and afterwards changes such location and occupies other lands of the same land owner to whom damages have been paid or awarded, the land first located upon shall, on the completion of the subsequent location, revert to the land owner, and on the subsequent location the commissioners shall award such damages as under the circumstances are just; and if the damages awarded on the second location are less than those awarded on the first location, the corporation may recover the difference, if paid, from the land owner, and if awarded and not paid, may retain the difference, and shall not be liable to pay the same. If the damages on the first location have been assessed by the commissioners and an appeal taken therefrom is pending, the corporation shall pay the costs accrued in the appeal, and cause its new location to be recorded, before it takes the benefit of this section.

SEC. 3375. If the location of a railroad is changed after the payment of damages to a land owner, and no portion of the lands of such owner is taken for the new location, the lands taken for the first location shall revert to the owner, and the railroad company may recover from such land owner the amount so paid as damages, deducting therefrom the damages which accrued to him in consequence of locating the railroad across his lands, which shall be ascertained by the commis-

sioners as provided for determining land damages upon the location of a railroad. But the land owner may, if he chooses, convey to the company the land so located upon, and retain the sum so awarded.

SEC. 3376. If the location of the road has been changed, as mentioned in the preceding section, and the damages have been awarded and not paid, the land first located upon shall revert to the owner thereof, and the corporation shall not be required to pay the sum so awarded, but shall pay to the owner the damages which have accrued to him by reason of such location, to be determined by the commissioners.

RIGHT TO ALTER HIGHWAY OR TURNPIKE.

SEC. 3377. When it is necessary for a railroad corporation to lay out its road upon, or by the side of a turnpike or way, or upon a bridge owned by a town or a turnpike corporation, the railroad corporation shall give notice thereof to one of the directors of the turnpike, or to one of the selectmen of the town; and if the railroad corporation cannot agree with the selectmen, or with the turnpike directors, on a road to be worked or a bridge to be built by the railroad corporation, in place of such road or bridge, or on the amount of damages, the commissioners, appointed to appraise land damages for the railroad corporation shall direct the corporation to build such road or bridge, as a substitute for the road or bridge so located upon, as the interest of the public and the parties requires; and upon the construction of such road or bridge, the road or bridge so located upon shall vest in the corporation. And a railroad corporation, turnpike corporation, town, or individual, owning land adjacent to said road or bridge, so entered upon, crossed, or altered, shall have the same right of appeal from the decision of the selectmen or commissioners, as is provided for in section 3184 [§ 3366.]

SEC. 3378. A railroad corporation may alter the course of a turnpike or other way where it is crossed by its railroad, for

the purpose of facilitating the crossing of the same, if it can agree with the selectmen of the town in which such way is situated or the directors of the turnpike corporation as to such alterations or the manner of crossing. If it cannot agree, the commissioners named in the preceding section shall determine the same.

SEC. 3379. Alterations made in a turnpike or way under sections 3195, 3196, and 3200 [§§ 3377, 3378, 3382], shall, if made by said commissioners, be signed by them, and, if agreed upon by the parties, shall be signed by the turnpike directors or selectmen of the town, and duly recorded in the town clerk's office.

SEC. 3380. Such railroad corporation may take such additional lands for the purposes mentioned in the three preceding sections as said commissioners judge necessary. Unless the lands so taken are purchased or voluntarily given, compensation therefor shall be determined by the commissioners, as in other cases, and made by the railroad corporation to the owners and persons interested in the lands; and when compensation is made, the same shall become part of such turnpike or way, and may be held for highway purposes. And said land owners and said corporation shall have the same right of appeal as in other cases of land damages.

CROSSING HIGHWAYS OR TURNPIKES.

SEC. 3381. If, after laying out and making a railroad, a turnpike road or other way is so laid out as to cross said railroad, the turnpike road or other way may be so made as to pass under or over the railroad, and shall be so made as not to obstruct or injure it.

SEC. 3382. A railroad may be so laid out as to cross a turnpike or way, and the corporation may raise or lower the turnpike or way, for the purpose of having its railroad pass over or under it.

SEC. 3383. When a railroad company has constructed a

railroad across a public highway by passing upon, over or under the traveled path thereof, the corporation shall keep in good and sufficient repair and rebuild, when necessary, bridges, culverts, crossings, and other constructions made for the accommodation, safety and convenience of the public travel on the highway, over, under or upon such railroad. And a railroad corporation so constructing a railroad across a highway, shall be liable to the town within whose limits the crossings are for damages occasioned to such town by reason of such corporation's not complying with the provisions of this section; and such liability shall extend to expenses incurred by the town in connection with actions against it by reason of such non-compliance. The liability of the corporation shall continue although the railroad has been abandoned unless the selectmen of the town, in writing, consent that the company be released therefrom, and cause such written consent to be recorded in the record of deeds in the town clerk's office in the town, or unless the company or its assigns restore such crossing to its original state of usefulness and permanency.

SEC. 3384. If the selectmen of a town in which such crossing is, are of opinion that such bridge, culvert, crossing, or other constructions require repairing or rebuilding in order to be safe for travel thereon, they may notify the corporation, whose duty it is made by this chapter to repair or rebuild the same, thereof by leaving a written notice to that effect with either the person acting as president, or the superintendent of such road, or the clerk of said corporation. And if such corporation does not repair or rebuild the same for one month after such notice, the town may repair or rebuild the same, and recover the expense thereof of the corporation, in an action of general assumpsit for work and labor done, with costs.

SEC. 3385. Nothing in the two preceding sections shall interfere with an express contract made by a railroad corpora-

tion and a town relative to keeping in repair or rebuilding any such bridge, culvert, crossing or other construction.

SIGNBOARDS AT CROSSINGS.

SEC. 3386. A railroad corporation shall cause boards to be placed, well supported by posts or otherwise, and maintained, across each public road or street, where the same is crossed by the railroad on the same level. The boards shall be elevated so as not to obstruct the travel, and so as to be easily seen by travelers; and on each side of the boards shall be painted in capital letters, of at least the size of twelve inches each, the words, "LOOK OUT FOR THE ENGINE."

SEC. 3387. A bell, of at least thirty pounds weight, shall be placed on each locomotive engine, and be rung at the distance of at least eighty rods from the place where the railroad crosses a road or street, on the same grade, and be kept ringing until it has crossed such road or street; or the steam whistle may be blown instead of ringing said bell.

SEC. 3388. If a railroad corporation unreasonably neglects or refuses to comply with the provisions of the two preceding sections, it shall forfeit not exceeding one thousand dollars.

UNSAFE CROSSING.

SEC. 3389. When a railroad crosses a highway, and such crossing is considered dangerous to the public, three or more freeholders in the town may apply by petition in writing to the supreme court for the county, and the petition, with a citation, shall be served on the corporation of such railroad, and the town in which the crossing is situated, at least twelve days before the session of the court; and the court shall appoint three disinterested freeholders as commissioners to inquire whether the crossing is dangerous to the public, and whether the same can be so made, by changing the location or otherwise, as to render it safe.

SEC. 3390. The commissioners shall act and report and

the court make orders as in laying out a highway ; and the court may order the town or the railroad to build the highway to and from such crossing, when established.

OBSTRUCTING CROSSING.

SEC. 3391. If a railroad corporation, or its servants or agents wilfully or negligently obstruct a public highway by their engines, tenders or cars, such corporation, servants or agents shall be fined not less than five dollars, nor more than twenty dollars.

SEC. 3392. A conductor or engineer of a freight train who allows said train to come to a stop and by so doing obstructs a public highway and refuses, immediately upon the stoppage of such train, to open a sufficient passage for carriages, by disconnection of cars, removal of train or otherwise, unless prevented by breakage of engine or other accident, shall forfeit not less than ten dollars nor more than fifty dollars, to be recovered, with costs, in an action founded on this statute, brought by any person before a justice, and the fine so collected shall be paid into the treasury of the town in which the offense is committed for the support of the poor.

SEC. 3393. No railroad company in this state or its servants or agents shall hereafter allow any handcar or other nuisance to be left on the railroad track, or at the side of said track, within the bounds of any highway crossed by said railroad.

SEC. 3394. Any railroad company violating section one of this act [§ 3393] shall be liable for all injuries and damages occasioned by reason of any horse or team becoming frightened thereby.

SEC. 3395. The servants or agents of any railroad corporation who violate the first section of this act [§ 3393] shall be fined not less than five dollars nor more than twenty dollars.

SEC. 3396. If a person leaves wood, lumber, or other

material, on the line of a railroad or highway, at or near the crossing of a highway, so as to prevent or obstruct a sight of the cars when approaching the crossing, he shall be fined not less than five nor more than fifty dollars.

SEC. 3397. If a person does not remove such obstruction, after notice from one or more of the selectmen of the town in which the crossing is situated, he shall forfeit to such town not less than five nor more than fifty dollars for every twenty-four hours such obstruction remains thereafter.

CROSSING OR CONNECTING WITH ANOTHER RAILROAD.

SEC. 3398. A railroad corporation may cross or unite its railroad with any other railroad at any point in its route and upon the grounds of such other railroad company, with the necessary turnouts, sidings, switches and other conveniences ; and if the two corporations cannot agree upon the amount of compensation to be made therefor or the points and manner of such crossings and connections, the same shall be determined by commissioners.

SEC. 3399. When a railroad enters upon, intersects or connects with another railroad, the managers of each of such connecting roads shall furnish to the other reasonable terms of connection, accommodations, privileges, and facilities, in the reception, transportation, and delivery of cars, passengers, baggage and freight, to and from each of such connecting roads, according to the usual course of railroad business, including the sale and reception of passenger tickets, and checking of baggage ; and shall receive and transport such cars, passengers, baggage and freight at reasonable times, and on reasonable terms ; and when a railroad is intersected by two or more railroads which are competing lines for business to or from the road so intersected, the managers of such road shall transport cars, passengers, baggage and freight to and from each of said intersecting roads on the same terms ; and shall establish no rules, regulations, or terms of connec-

tion that will give to either of such competing roads an unreasonable advantage over the other; and if the managers of said roads cannot agree upon any of the terms aforesaid the same shall be determined by commissioners.

SEC. 3400. When it becomes necessary to appoint commissioners under either of the two preceding sections the supreme court in any county, upon the petition of either party, verified by oath and filed, and upon at least fifteen days' notice thereof by service upon the adverse party, shall appoint three disinterested commissioners, who shall upon due notice to parties in interest, hear such parties with their allegations and proofs, and with the least possible delay fix upon the terms, times, and manner of connection, and other particulars mentioned in said sections, to be afforded by the managers of the railroad so connected with, and shall make a written award therein; and in so doing, shall have regard to the interest and convenience of the public.

SEC. 3401. Said commissioners shall report such award to the supreme court at the term thereof, in whatever county, next succeeding the making of such award, or to a special term appointed for that purpose, and to which such reports shall be directed to be made. Such award shall be confirmed by the court, unless cause is shown to the contrary; and when so confirmed, shall be binding and conclusive upon the parties thereto, until altered or modified by another board of commissioners appointed as aforesaid upon petition of either party. But no such alteration shall be made within two years after making such award.

SEC. 3402. When a competing road mentioned in section 3214 [§ 3399] is interested in the relief sought by such petition, or when upon hearing thereof it appears to the court that such competing road is so interested, the managers of such road shall be made a party to the petition, and service thereof made upon them as herein provided, before the appointment of commissioners, and they shall be heard before

said commisssioners and the court; and due regard to their rights and interests shall be had in the appointment of commissioners, and in the award and decision made upon the petition; and the judgment thereon shall be binding upon them so far as applicable and so far as it affects the relative rights of said competing roads in the premises, and to that extent shall be conclusive in a similar proceeding between the same parties, until modified as before provided.

SEC. 3403. The supreme court may in any county, or at the general term, make proper orders for carrying into effect such award, and for restraining violations thereof; and may enforce said orders by *mandamus*, or by the ordinary process of the court of chancery, and shall for that purpose have chancery powers; and it may allow to either party reasonable costs, and issue execution therefor. The compensation of the commissioners shall be paid by the parties, in such proportion as the court directs.

SEC. 3404. The chief judge of the supreme court may, upon application of either party to such petition, if in his judgment the interests of justice or of the public require it, appoint a special term of the supreme court, to be holden at such time and place, and to be composed of such judges, not less than three, as he designates, for the purpose either of appointing such commissioners or of hearing a motion to confirm their award, or an application for necessary orders to enforce the same, or to restrain a violation thereof. Each judge attending such special term shall receive the sum of ten dollars a day for the time spent in going to and from and attending such term, with his reasonable expenses in so doing, which shall be paid by the parties to such petition in such proportion as the court directs.

STOPPAGE OF TRAINS AT CROSSING.

SEC. 3405. When a railroad is crossed by another railroad at grade, every engineman on either of the roads shall

before reaching the crossing stop his engine at some point within one thousand feet therefrom, shall sound the whistle before starting and shall pass slowly over the crossing; but one stop shall be sufficient for all such crossings within one thousand feet of each other upon the same road.

SEC. 3406. An engineman who violates the provisions of the preceding section shall be fined one hundred dollars, and the corporation on whose road the offense is committed shall be fined the further sum of three hundred dollars; and one-fourth part of each penalty collected shall go to the person making the complaint.

FARM CROSSINGS. CATTLE GUARDS.

SEC. 3407. A railroad corporation shall construct and maintain farm crossings of the road for the use of the proprietors of lands adjoining the railroad, and cattle guards at all farm and road crossings sufficient to prevent cattle and animals from getting on the railroad.

SEC. 3408. If the parties cannot agree upon the plan, manner or number of the farm crossings, the same shall be determined by the commissioners; but if the cost of such farm crossings exceeds the value of the land to be accommodated thereby, the commissioners need not order such crossings to be made, but shall award reasonable damages in lieu thereof.

FENCES.

SEC. 3409. Each railroad corporation shall construct and maintain on the sides of its road, when completed and in running order, a good and sufficient fence.

SEC. 3410. If a railroad corporation does not construct and maintain a fence as required by this chapter any person aggrieved may construct it; and the selectmen of the town in which the same is located shall appraise the value thereof, and the railroad company shall pay the amount so awarded by the selectmen to the person so aggrieved. But no railroad

company shall be required to build its fence while the ground is frozen.

SEC. 3411. The provisions requiring a railroad corporation to construct and maintain fences shall not apply to a case where the corporation has settled with and paid the land owner for building and maintaining such fence. If a person thus paid for keeping such fence in repair neglects so to do the corporation may make the repairs and recover the necessary expense thereof of such person or his grantee.

SEC. 3412. Until its fences and cattle guards are duly made, the corporation and its agents shall be liable for the damages done by its agents or engines to cattle, horses or other animals thereon, if occasioned by want of such fences and cattle guards ; after such fences and guards are made, the corporation shall not be liable for such damages, unless negligently or wilfully done.

SEC. 3413. If a person rides, leads or drives a horse or other animal upon a railroad, and within such fences and guards, other than at road and farm crossings, without the consent of the corporation, he shall forfeit not more than ten dollars to be recovered by the corporation in an action on the case, and shall also pay the damages sustained thereby to the party aggrieved.

SEC. 3414. If a horse or other beast is found going at large within the limits of a railroad after the same is opened for use, the person through whose fault or negligence such horse or other beast is so at large shall forfeit not more than twenty dollars for every horse or other beast so found going at large, and shall be liable for the damages thereby sustained by any person, to be recovered in an action on the case.

SEC. 3415. A person through whose lands a railroad passes, may, after said road is in operation, make complaint in writing, to the commissioners provided for in this chapter, that he is aggrieved by the neglect or default of a railroad company in constructing or maintaining fences, cattle guards

or farm crossings, which the company is bound to construct or maintain ; or by its stopping, impeding or altering a watercourse, or by its making or stopping a ditch. The complaint shall require the corporation to appear before the commissioners at a time and place therein appointed, to show cause why the commissioners should not make an order in the premises, and shall be served upon the corporation according to law.

SEC. 3416. Upon the hearing, the commissioners may make an order in writing, requiring the corporation to construct or maintain in good repair such fence, cattle-guard or farm crossing, or to make or alter such watercourse or ditch, or to remove such impediment to the same, within such time as they may fix. But such corporation shall not be required to open a ditch while the ground is frozen, nor to alter the natural course of or do any act in regard to a watercourse which it is not legally bound to do, nor to comply with such order till ten days after being served with a copy thereof.

SEC. 3417. The corporation failing to comply with such order shall forfeit to the party aggrieved twenty dollars with costs of prosecution, to be recovered in an action on the case, and shall be further liable to him for the damages he sustains in consequence of such failure.

BRIDGES.

SEC. 3418. All railroad bridges in this state shall, when built or rebuilt, be hereafter so constructed as to leave a clear space of not less than three feet between the inner sides of said bridges and the outer sides of all cars passing through the same, and also a clear space of not less than seven feet from the walking-board or top covering of all cars, except hay, charcoal, bark, horse and refrigerator cars and other cars for the transporting of special freights for which a higher class of cars are required, running over or through them, and the lowest timbers, boards or irons in the covering of said bridges.

SEC. 3419. No railroad company shall run cars of its own with ladders or steps to the top of the same on the sides of its cars, but said ladders or steps shall be on the ends or inside of the cars.

SEC. 3420. A railroad corporation not complying with the requirements of the two preceding sections shall forfeit fifty dollars for every days' neglect, and be liable for the damages and injuries to passengers and employes on its roads, resulting from such neglect.

SEC. 3421. Such penalty may be enforced by an action on the case in the name of the State, and the railroad commissioner shall prosecute the same.

MAINTENANCE OF STATIONS.

SEC. 3422. Railroad corporations shall establish and maintain depots or station houses, with suitable accommodations, at such points on their roads as the supreme court for the county where the same are situated, shall, on petition for that purpose, adjudge the public good to require. Such petition shall be signed by ten freeholders, resident in the town where the depot is proposed to be located, and the petitioner shall give satisfactory security to the petitionee for costs of prosecution, as required in writs of summons.

SEC. 3423. No railroad corporation shall abandon a station or depot on its road and owned by said corporation and established for five years, or substantially diminish the accommodation furnished by the stopping of trains at such stations as compared with that furnished at other stations on the same road, except by consent of the supreme court for the county in which the depot is situated, upon petition and hearing, after such notice as said court directs, which hearing may be upon proofs in court, or by reference or commission, under the direction of the court, as it adjudges. Upon granting or refusing such petition, the court may award just costs for or against parties who present or resist such petition.

SEC. 3424. A railroad corporation desiring to remove or discontinue a depot may publish notice of such intention in a newspaper, or two newspapers, if there are so many, printed in the county in which such depot is located, or if no newspaper is printed in such county, in a newspaper or two newspapers, if there are so many, in an adjoining county, three weeks successively, the last publication to be at least thirty days and not more than sixty days previous to the time of discontinuance or removal as published in such notice ; and if no proceeding is commenced within thirty days after the last publication to enjoin such corporation it may discontinue or remove the depot without applying to the court.

SEC. 3425. In case of a violation or intended violation of the provisions of the two preceding sections, the state's attorney of the county in which such station or depot is located shall, at the relation of ten legal voters of the town in which said station is located, proceed in equity by petition to enjoin such violation ; and the chancellor to whom the petition is presented, either in term time or vacation, shall enforce in a summary manner such provisions and compel obedience thereto.

TOLLS.

SEC. 3426. A railroad corporation may establish, for their sole benefit, a toll upon all passengers and property carried on their railroad at such rates as are determined by the directors of the corporation ; and may regulate such conveyance and transportation, the weight of loads, and other things in relation to the use of the road, as the directors determine. But the supreme court may, at a session holden in a county through which the road passes, on the application of ten freeholders of the county, and due notice thereof to the corporation, from time to time, alter or reduce such rates of toll, according to the provisions, if any, contained in the charters of such corporations ; but the tolls shall not, without the consent of

the corporation, be so reduced as to produce, with all other profits, less than ten per cent. per annum.

SEC. 3427. A railroad corporation whose railroad is located in the state, shall not charge a larger sum for freight, merchandise, or passage of passengers thereon for a less distance, to or from a way station on said road, than is charged for a greater distance; and in case of a violation of this provision, the excess so charged may be recovered from said corporation, by the party aggrieved, in an action for money had and received, with full costs.

UNITED STATES MAIL.

SEC. 3428. A railroad corporation shall, when applied to by the postmaster-general, convey the mail of the United States on its road; and if such corporation does not agree with the postmaster-general as to the compensation therefor, and as to the time, rate, speed and manner of carrying the same, the governor may appoint three commissioners, who, or a majority of them, after twenty days' notice in writing of the time and place of meeting to the corporation, shall fix the prices, terms and conditions aforesaid; but such price shall not be less, for carrying said mails in the regular passenger trains, than the amount which such corporation would receive as freight on a like weight of merchandise transported in their merchandise trains, and a fair compensation for the post office car. And if the postmaster-general requires the mail to be carried at other hours, or a higher speed, than the time or speed of the passenger trains, the corporation shall furnish an extra train for the mail and have extra compensation, to be fixed as aforesaid.

REGULATIONS RESPECTING THE RUNNING OF THE ROAD.

SEC. 3429. All railroad passenger trains except mixed trains shall be provided with brakes operated from the engine, by the engineer.

SEC. 3430. If any corporation, receivers or trustees shall run, or cause to be run, a railroad train in violation of the provisions of this act [§§ 3429, 3430] they shall be punished by a fine of fifty dollars for each offense.

SEC. 3431. A conductor, baggage master, engineer, brakeman, or other servant of a railroad corporation, employed in a passenger train, or at stations for passengers, shall wear upon his hat or cap a badge, which shall indicate his office, and the initial letters of the name of the corporation by which he is employed. No officer without such badge shall demand or be entitled to receive, from any passenger, any fare, toll or ticket or interfere with a passenger, his baggage or property or exercise any of the powers of his office.

SEC. 3432. Baggage masters and station agents on railroads shall give checks when requested to do so, to the owners of baggage when delivered to them for transportation from station to station ; and said checks shall be returned to the baggage master or station agent when he delivers the baggage to the owner ; and a railroad corporation whose officers or servants do not comply with the requirements of this section, shall forfeit to the state ten dollars, and shall also be liable for damages which accrue in consequence thereof.

SEC. 3433. In forming a passenger train of more than one passenger car, no loaded and not more than two empty baggage, freight, merchandise or lumber cars shall be placed in the rear of passenger cars ; and if they are so placed, and an accident happens to life or limb, the officer or agent who so directed, or knowingly suffered such arrangement, and the conductor and engineer of the train, shall each and all be held guilty of intentionally causing the injury, and be punished accordingly.

SEC. 3434. If a passenger refuses to pay his fare or toll, or is disorderly, or drunk, or refuses to comply with the reasonable regulations of the corporation for the government of passengers, the conductor of the train and the servants of the

corporation may put him out of the cars at or near a station, or upon any part of the railroad near to or in sight of a dwelling house, causing the train to be stopped for that purpose.

SEC. 3435. A person entering as a passenger upon a railroad train and refusing to pay his fare shall be fined not less than two nor more than twenty dollars.

SEC. 3436. If a conductor, engineer, or other person having the control of an engine or train of cars, runs such engine or train of cars, or allows the same to be run, upon a section of a railroad, upon the time designated for any other engine or train of cars to run upon such section in an opposite direction, without notice from the conductor, engineer, or other person having control of the last-mentioned engine or train of cars, authorizing him so to run, such conductor, engineer, or other person so offending, shall be fined not more than one thousand dollars, nor less than one hundred dollars, or imprisoned in the state prison not more than five years, and if the death of a person thereby ensues the person so offending shall be guilty of manslaughter and punished accordingly.

SEC. 3437. Every railroad company shall keep a printed copy of the preceding section hung or posted up on every engine and in every passenger car when in use, and in every passenger and freight depot belonging to the company; and for every ten days' neglect to comply with this requisition shall forfeit two hundred dollars.

SEC. 3438. No locomotive, engine or other power shall run upon a railroad, except such as belong to and are controlled by the corporation owning and managing the road, unless by the consent of said corporation. An engineer or other person violating the provisions of this section shall be liable to the corporation for the damages thereby sustained, and shall be fined not more than five hundred dollars; and if a collision of trains results from the violation of this section, whereby a person is killed, such engineer or other person shall

be guilty of manslaughter. But this section shall not be enforced when it conflicts with the charter of a railroad company organized under the laws of this state.

SEC. 3439. If a person having the control of a detached engine, or an engine with a passenger train of cars attached, runs such engine or such passenger train of cars into or through a passenger depot at a speed exceeding four miles an hour, he shall be fined ten dollars.

SEC. 3440. If a railroad company employs or retains in its service a conductor, engineer, brakeman, or switchman, who uses intoxicating liquors as a beverage, such fact being known to the president, superintendent, or any one of the directors of such road, such corporation shall forfeit not less than three hundred, nor more than three thousand dollars, with costs of prosecution; and shall also be liable for the damages which a person sustains by the employment or retention of such conductor, engineer, brakeman, or switchman.

SEC. 3441. If a person, while in charge of a locomotive engine running upon the railroad of a corporation, or while acting as the conductor of a car, or train of cars, on such railroad, is intoxicated, he shall be fined not more than five hundred dollars, or imprisoned in the state prison not more than one year.

SEC. 3442. When an engineer, firemen, or other agent of a railroad corporation is guilty of negligence or carelessness, whereby an injury is done to a person or corporation, he shall be punished by imprisonment not more than one year, or by a fine not more than one thousand dollars. But this section shall not exempt such corporation from an action for damages by a person or corporation sustaining such injury.

SEC. 3443. When the property or person of another is injured through the default of a railroad corporation, its agents or employees, the cars, engines, and other property, which at the time of such injury are subject to use in the running and management of said road, and which have at any

time been owned by said corporation, shall be held to be the property of the corporation, for the purpose of furnishing indemnity for such injury, and may be attached and levied upon as such at the suit of the party injured.

SEC. 3444. When a building or other property is injured by fire communicated by a locomotive engine of a railroad corporation, such corporation shall be responsible in damages for such injury, unless it shows that it has used due caution and diligence and employed suitable expedients to prevent such injury ; and a railroad corporation shall have an insurable interest in such property along its route, and may procure insurance thereon in its own name and behalf.

SEC. 3445. A person who wilfully does or causes to be done an act whereby a building, fence, construction, or work of a railroad corporation, or any engine, machine or structure, or any matter or thing appertaining to the same, is stopped, obstructed, injured or destroyed, shall forfeit to the corporation double the amount of damages sustained by such offense.

RAILROAD POLICE.

SEC. 4446. The selectmen of a town may, upon petition of a company or persons owning, managing or using a railroad, appoint such employes of such company or persons as such company or persons designate to act as policemen in and upon the premises and cars owned, managed or used by such company or persons, and they shall issue to persons so appointed commissions to act as such policemen, and copies of such commissions shall be certified by such selectmen, and filed by such railroad company or persons in the office of the Secretary of State, and the filing of such copies shall constitute the persons named therein policemen within the state.

SEC. 3447. Such policemen shall hold their offices during the pleasure of the selectmen by whom they are appointed ; and when such company or persons do not require the services of a railroad policeman appointed on their petition. they may

file a notice to that effect in the office of the Secretary of State and thereupon the powers of said officers shall cease.

SEC. 3448. Such policemen, except passenger conductors, shall, when on duty, except as detectives, wear a metallic badge in plain view with the words "railroad police," and the name or initials of the corporation for which they are appointed, inscribed thereon.

SEC. 3449. Such policemen may arrest without previous complaint or warrant persons found intoxicated, or guilty of profane swearing, vagrancy, breaches of the peace, assaults or other offenses against the laws, when such offenses are committed in or upon the premises and cars owned, managed or used by the company or persons, upon whose petition they are appointed; and such offenders shall be taken in the act or on the speedy information of others, and upon the complaint of such policemen shall be punished as provided by law. But if a person commits an offense against the laws upon the railroad cars when in motion, such offenders may be conveyed to and tried for such offense in any town on the line of the railroad owned, managed or used by such company or persons, not more than twenty miles from the place where such offense is committed.

SEC. 3450. The compensation of railroad police shall be paid by the companies or persons upon whose petition they are appointed; and such companies or persons shall be liable to parties aggrieved by official misconduct of such railroad police to the same extent as they now are for the torts of agents and servants in their employ.

SEC. 3451. A person without right loitering or remaining in a station house of a railroad company, or upon the platform or grounds adjacent thereto, after being requested to leave by a railroad policeman, shall be fined not less than two nor more than twenty dollars.

SEC. 3452. A minor boarding a railroad train on its arrival or departure, or the making up of railroad trains at a station,

or loitering about a yard or station on the property of a railroad company, without permission, shall be fined not less than one dollar and costs and not more than five dollars and costs, or imprisoned not less than five days nor more than thirty days ; and station agents or yard masters, or any officer authorized to make arrests shall arrest such minor and bring him before a justice in the town where the offense is committed, who may enforce such provisions.

CHAPTER 158.

TRUSTEES AND PROCEEDINGS AFTER FORECLOSURE ;
[RECEIVERS OF CONSOLIDATED RAILROADS].

SECTION	SECTION
DUTIES OF TRUSTEES.	
3453. Meeting of bondholders; trustees' report.	3468. Copies of articles of record made evidence.
REMOVAL OF TRUSTEE.	3469. Interest of bondholders not subscribing, appraised and taken or sold.
3454. Application; hearing appointed and notified.	3470. Powers, duties and liabilities of corporation.
3455. Testimony.	3471. Corporation may take road; to be trustee for others interested.
3456. Decree and orders.	3472. Increasing capital stock.
3457. Appeal; proceedings in supreme court.	3473. Rent, if road was leased when corporation formed.
3458. When trustee appeals, bond may be required.	3474. Records and papers of former corporations; copies.
3459. On affirmance, cause remanded; new trustee's bond.	3475. Purchasers or grantees of road may form a corporation.
SERVICE OF PROCESS OF NON-RESIDENT TRUSTEES OR LESSEES.	RIGHT OF BONDHOLDER TO REDEEM AFTER SALE.
3460. On agent; when no agent is appointed.	3476. What proportion to pay; rights of parties adjusted.
REORGANIZATION AFTER FORECLOSURE.	IN CASE OF TWO MORTGAGES.
3461. Majority of bondholders may form corporation.	3477. Corporation formed by bondholders under the two.
3462. Articles of association.	3478. Or by purchase at sale subject to mortgage.
3463. Subscribing articles.	3479. Preferred stock to discharge incumbrance; pending suits not affected.
3464. No subscription for part of a share.	RECEIVER APPOINTED IN ANOTHER STATE.
3465. Filing and recording articles.	3480. How made receiver in this State.
3466. Notice of formation of corporation.	
3467. Subscribing articles after such notice.	

DUTIES OF TRUSTEES.

SEC. 3453. The trustees so long as they continue in possession of a railroad under a mortgage, shall call a meeting of the bondholders or creditors for the security of whose claims they hold such property in trust, at some convenient place on or near the line of such road, in the month of January in each year, by giving notice of such meeting at least twenty days previous thereto, in two or more daily papers, published in each of the cities of Boston and New York, and in at least one paper, if there is one, published in each county

through which said road is located ; and at such meeting said trustees shall submit a report of the earnings of, and the expenditures upon and for, the trust property and estate for the year preceding the first of such January, and also of their business and proceedings, according to the usual custom of railroad directors to the stockholders.

REMOVAL OF TRUSTEE.

SEC. 3454. When five or more owners or holders of notes, bonds or obligations secured by a railroad mortgage, to an amount of not less than fifty thousand dollars, deem a trustee of such mortgage an unsuitable person to administer such trust, they may apply by petition to any chancellor for the removal of such trustee, and shall set forth in a general manner the reasons for such removal. The court shall thereupon appoint some short day for hearing the petition and shall give due notice thereof to the trustees of the mortgage and to other persons interested. Notice of the application, and of the time and place of hearing shall be given to all persons interested who reside out of the state by publication in one or more daily newspapers published in Boston and New York.

SEC. 3455. Upon the hearing, the petitioners and trustees, and other witnesses may be examined orally before the chancellor ; or the chancellor may, in his discretion, appoint a special master to take the testimony, and report the same to the court. The witnesses shall be examined as to the alleged breaches of trust, or neglect or omissions of duty ; as to the fitness and competency of the trustee ; as to his holding other offices, or having interests of a public or private nature, inconsistent with the interests of the *cestui que trust* or interfering with the prompt and impartial discharge of the duties of such trusts ; and as to the circumstances or conduct of the trustee which render it improper for the interests of the trust to continue him in office.

SEC. 3456. If, upon the hearing, the chancellor finds that such trustee ought to be removed, he shall decree his removal, shall appoint a new trustee, and shall make such orders and decrees as to the transfer and conveyance of the trust property to the new trustee, as to ascertaining the debts and liabilities of the old trustee, and the payment of the same, as to the future management of the trust and the accounting thereon, and as to other matters connected with the trust, as the exigencies of the case, the protection of the old trustee, and the security and welfare of the trust fund require.

SEC. 3457. Either party may within twenty days after said order appeal to the supreme court; in which case the application and proceedings therein, and the minutes of the chancellor as to the testimony taken before him, or the testimony taken by the special master, shall pass to the supreme court. Upon an examination of the papers and the testimony, the supreme court may, upon application and notice thereof, order the taking of further testimony, and may affirm or reverse the order of the chancellor, and may proceed therein as justice and equity require.

SEC. 3458. When an appeal is taken by the trustee, the chancellor may require that the appellant execute a bond in such sum as he directs, with sufficient sureties, who shall be residents of the state, conditioned for the safe keeping and management of the trust property during the pendency of the appeal.

SEC. 3459. If the chancellor orders the trustee to be removed and the order is appealed from and is confirmed by the supreme court, the cause shall be remanded to the court of chancery for final decree; and in such case or in case no appeal is taken the chancellor may order the new trustee, before entering upon the duties of his office, to file with the clerk of the court a bond in such sum as the chancellor thinks proper, with at least two sufficient sureties resident in the state, to be approved by the chancellor on notice and hearing,

with such conditions as the chancellor requires to protect the rights of parties affected by such order.

SERVICE OF PROCESS ON NON-RESIDENT TRUSTEES OR LESSEES.

SEC. 3460. The trustees under an assignment, mortgage, or other transfer, executed by a railroad company, and the lessees of the railroad company not resident in the state, who hold possession of the property of such railroad company, or manage the running of its road, under such assignment, mortgage, lease, or other transfer, shall, if they reside without the state, appoint one person resident in the state, upon whom service of process may be made; and shall, in the month of January in each year, file in the office of the clerk of the county court in each county through which the road passes, a certificate signed by such trustees or lessees, designating the name and residence of the person thus appointed; and service of process upon the person so appointed shall be a legal service on such trustees or lessees; and if the trustees or lessees do not appoint such agent, and file such certificate, the leaving with a station agent, or depot master, in the employment of such trustees or lessees, of a copy of process against such trustees or lessees by an officer, shall be legal service of such process upon such trustees or lessees.

RE-ORGANIZATION AFTER FORECLOSURE.

SEC. 3461. Where a mortgage of a railroad or part thereof, made by a railroad company, to secure the payment of bonds, is foreclosed, and the legal title to the mortgaged premises vested in the mortgagees, persons holding a majority in amount of the principal of the bonds so secured, may form themselves into a corporation for the purpose of owning or maintaining and operating such railroad, or part thereof, for public use, in the conveyance of persons and property.

SEC. 3462. Such persons may make, subscribe and file articles of association, in which shall be set forth a brief state-

ment of the making and foreclosure of the mortgage under which they have become interested in such railroad; the amount of bonds which were owing upon and secured by the mortgage; the name of the corporation to be formed; the amount of its capital stock, which shall not exceed the amount of principal and interest of said bonds and twenty-five per cent. on the same in addition thereto, and the number of shares, each of which shall be fifty dollars, into which the capital stock is divided; the number of directors by whom the corporation is to be managed; and the names of the persons who are to be directors for the first year, and until others are chosen in their places, a majority of whom shall be residents of the state.

SEC. 3463. Each subscriber to such articles shall state in his subscription the number of shares which he agrees to take, and the amount of bonds held by him and secured by such mortgage which he intends to surrender in payment or part-payment of his subscription. Such subscription may be made by the holder in person, or by his attorney or agent, and three of the persons named in said articles as directors may be inspectors of such subscriptions. The production of a bond shall be evidence of the right of the person holding the same to subscribe to said articles.

SEC. 3464. No subscription shall be made for a fractional part of a share; but when a holder of bonds would otherwise be entitled to subscribe for a fractional part of a share, he may subscribe for a full share and pay the excess in cash.

SEC. 3465. Such articles of association shall be filed in the office of the secretary of state, and a copy thereof filed and recorded in the offices of the clerks of the counties through which the railroad passes. But the articles shall not be so filed until the amount of bonds, to be surrendered by the subscribers thereto for that purpose, shall be at least a majority in amount of the principal of the bonds secured by the mortgage referred to in such articles; nor until there is indorsed

thereon, or annexed thereto, an affidavit made by at least three of the directors named in the articles, that they have examined the list of subscribers, and that they believe the said subscribers to be the holders or representatives of the amount of bonds therein stated, and intend to comply with the terms of their subscription.

SEC. 3466. A notice of the formation of such corporation and the filing of the articles, shall be published once a week for three successive weeks in a newspaper, if there is one, published in each of said counties, and for six successive days in two or more dailies published in each of the cities of New York and Boston.

SEC. 3467. A holder of a bond secured by such mortgage may, within thirty days after the last publication of such notices, either in person or by attorney or agent, subscribe the articles of association, or a copy thereof, for an amount of stock equal to the amount of bonds held by him, which he intends to surrender to the directors of said new company, in payment or in part-payment of his subscription.

SEC. 3468. A copy of articles of association, filed and recorded in pursuance of this chapter, or of the record in the offices of the county clerks, and certified to be a copy by the secretary of state, or by the clerk of either of the counties in which it is directed to be filed, shall be presumptive evidence of the incorporation of such company, and of the facts therein stated.

SEC. 3469. If a holder of bonds, secured by the mortgage referred to in such articles of association, does not subscribe the articles and become a stockholder in the company, the court of chancery may, upon the application of such holder, direct the estate, title, and interest of such holder to be assigned to said company, and such company shall pay such sum of money, at such times and in such manner, to the other party, as commissioners appointed by the court judge just and equitable ; and if said holder is not satisfied with such

appraisal, the court shall order the commissioners to sell such estate at public or private sale, agreeably to the order of the court, and execute a conveyance to the purchaser thereof, as provided in case of the partition of real estate.

SEC. 3470. A company formed under this chapter shall, from the time its articles of association are filed, be a corporation, vested with the powers, rights, privileges, and franchises for maintaining and operating its railroad, which were vested in the corporation mortgaging it, and shall be subject to like duties and liabilities, and to future legislation.

SEC. 3471. Such corporation may at once take possession of and maintain and operate said railroad, subject to existing rights of other parties, and may by purchase or otherwise, obtain the title and ownership, or the use and benefit of the whole estate, and satisfy the undivided interests or claims of other parties interested; and until the interests of such other parties are vested in such new corporation, said corporation shall be the trustee thereof, and shall be accountable therefor as tenants in common.

SEC. 3472. Such corporation, at a meeting of the stockholders called for that purpose may increase its capital stock to an amount not exceeding double the amount of principal and interest of the bonds foreclosed and designated in the articles of association.

SEC. 3473. If the trustees of the mortgagees have foreclosed and leased the road prior to the organization of such corporation by the bondholders, the lessees shall pay the rent that accrues after such organization to the treasurer of said corporation.

SEC. 3474. Such corporation shall keep safely and have the custody of the records, title-deeds and archives of the corporation previously owning and mortgaging such railroad; and the clerk of such new corporation shall be the certifying officer of any matter or document relating to said former corporation.

SEC. 3475. In case of neglect or failure to organize a new corporation under the provisions of this chapter, when a mortgage has been foreclosed, or if the railroad on which the mortgage exists is sold or assigned by an order, decree or judgment of a court, the purchasers or grantees who acquire title to the same in the manner prescribed by law shall have the rights, powers and privileges granted in this chapter to a majority of the bondholders, and be subject to like duties; and may associate with them other persons, and may make, sign and file articles of association as before prescribed in this chapter, and shall thereupon be a corporation with the powers, privileges and franchises granted to and be subject to the duties imposed upon railroad corporations.

RIGHT OF BONDHOLDERS TO REDEEM AFTER SALE.

SEC. 3476. When a sale is made of a railroad and franchises, either with or without other property, under a railroad mortgage or power of sale thereof, for the security of a debt of a railroad company, or when such sale is made under the order of a court, any creditors of such road, under such mortgage, may within three months after such sale pay into the court of chancery making such order of sale, or if no order of sale has been made, into the court of chancery in some county through which such road is located, for the use of the purchaser at such sale, a sum bearing the same proportion to the price paid by the purchaser, with twelve per cent. interest thereon from the time of the sale, that the debt so held by such creditor under the mortgage bears to the whole amount of debt outstanding under the mortgage; whereupon the creditors shall have a legal and equitable interest in the property so sold in common with such purchaser in the proportions aforesaid; and in such cases the court of chancery may in a summary manner adjust the rights of the parties, and grant such relief as the nature of the case requires.

IN CASE OF TWO MORTGAGES.

SEC. 3477. Where two or more mortgages on undivided portions of a railroad or part thereof, made by a railroad company to secure the payment of bonds, are foreclosed, and the legal title to the mortgaged premises vested in the mortgagees, according to their respective interests, the holders of a majority of the bonds under each of said mortgages may form themselves into a corporation for the purpose of owning or maintaining and operating such railroad or part thereof for public use in the conveyance of persons and property, upon such conditions in regard to their respective interests as they may agree upon, and substantially in the manner provided in this chapter, so far as the same is applicable to such case; and holders of bonds under either of said mortgages, who do not join in such arrangement and become parties thereto, shall have the rights and remedies provided in this chapter, or otherwise in law or equity. Such new corporation shall have the rights and be required to perform the duties of a corporation, as if formed by bondholders under a single mortgage.

SEC. 3478. If a railroad and property connected therewith are sold upon a mortgage or deed of trust, given to secure notes or bonds issued by a railroad company, either by virtue of a power of sale contained in such mortgage or deed of trust, or by an order or decree of the court of chancery, and said railroad and property are encumbered by a prior mortgage or deed of trust, the same shall be sold subject to such prior encumbrance; and the purchasers shall have the same powers to organize a new corporation and be entitled to the privileges, and the bondholders to the rights provided in this chapter.

SEC. 3479. Such new corporation, when duly organized may issue preferred stock to provide means to settle and discharge such prior encumbrance, and each share of the capital stock shall entitle the holder to one vote. But nothing in

this and the preceding section shall affect any proceedings which may at the time of such sale, as provided in such mortgage or deed of trust, be pending to enforce the provisions or provide for the foreclosure of such prior mortgage or deed of trust, or to require new parties thereto; but persons claiming through such sale shall be bound by such proceedings to the same effect as the parties thereto.

[RECEIVER APPOINTED IN ANOTHER STATE.]

SEC. 3480. Whenever any railroad corporation created by the laws of another adjoining State, by consolidation, purchase or otherwise shall have acquired railroad property in this State, with all its rights and franchises, thereby becoming a portion of its operated line; and if for any reason a receiver of such road and property shall have been appointed by a court of competent jurisdiction of the State in which such road was incorporated, and the receiver so appointed shall have duly filed his bonds and the order of his appointment, as required by the laws of such state, and shall have entered into actual possession of that portion of railroad in such state and shall operate the same under the order of such court; and shall desire to operate that portion of said road acquired in this state, he shall file with the clerk of the county or one of the counties in which that portion of said railroad is situated in this state a copy of such order of appointment and a copy of his bond together with a copy of the papers upon which his appointment was made, all duly authenticated, he may thereupon, upon the approval of a chancellor on due notice by advertisement previously published, become the receiver of that portion of railroad in this state with the same rights and privileges belonging to the company of which he has been appointed such receiver and shall be subject to the jurisdiction of the court of chancery of this state, the same as though originally appointed thereby upon proper proceedings.

SEC. 4185. No railroad company in the transportation of

animals shall permit them to be confined in cars more than twenty-eight consecutive hours, including the time they have been confined on connecting roads, without unloading them for rest, water and feeding, for at least five consecutive hours, unless prevented from so unloading by storm or other accidental causes. Animals so unloaded shall be properly fed, watered and sheltered during each rest by the owner or person having the custody thereof, or, in case of his default, by the railroad company transporting the same at his expense ; and said company shall in such case have a lien upon such animals for food, care and custody furnished and shall not be liable for the detention authorized by this section. A company, owner or custodian of such animals who does not comply with the provisions of this section shall forfeit not less than fifty nor more than two hundred dollars. But the foregoing provisions shall not apply to animals carried in cars in which they can and do have proper food, water, space and opportunity for rest.

STATE OF VERMONT.

GENERAL LAWS RELATING TO RAILROADS,

PASSED BY THE LEGISLATURE AT THE SESSIONS OF

1882, 1884, 1886 AND 1888.

ACTS OF 1882.

EXTRACT FROM

NO. 1.—AN ACT TO PROVIDE A REVENUE FOR THE PAYMENT OF STATE EXPENSES.

SECTION

11. Railroads wholly within the State to be taxed on gross earnings; when partly within the State, a proportionate amount of gross earnings.

12. Rate per cent. to be assessed on

SECTION

earnings of railroads.

13. Time when tax is payable.

14. Lessee of railroad to pay taxes; effect of such payment upon payments due lessor.

It is hereby enacted by the General Assembly of the State of Vermont :

RAILROADS.

SEC. 11. Every corporation, person or persons owning or operating a railroad in this State, whether as owner, lessee, receiver, trustee or otherwise, shall pay a tax to the State on the entire gross earnings of such railroad, if such railroad is situated wholly within the State. If such railroad is situated partly within and partly without the State the tax shall be

upon such proportion of the entire gross earnings of such railroad as the mileage of trains run in this state bears to the mileage of all the trains run on the entire main line of the road.

SEC. 12. The tax upon such earnings shall be rated according to the earnings per mile of road in this State, and is hereby assessed, at the rate of two per cent. on the first two thousand dollars a mile or total earnings if less than that sum; at the rate of three per cent. on the first thousand or part thereof above two thousand dollars a mile; at the rate of four per cent. on the first thousand or part thereof above three thousand dollars a mile; and when the earnings exceed four thousand dollars a mile, at the rate of five per cent. on all earnings above that sum.

SEC. 13. Such tax shall be payable one-half semi-annually in the months of February and August and shall be based upon the gross earnings during the six months terminating with the last day of December or June next preceding.

SEC. 14. When a railroad is operated in this State by a corporation, person or persons by virtue of a lease or other contract, the aforesaid tax shall be paid by the lessee of such railroad or holder of such contract as the case may be; and the said tax shall be charged against and deducted from any payments due or to become due the lessor of such railroad, or person, persons or corporation granting such contract, as the case may be, on account of such lease or contract; unless in the provisions of such lease or contract it is stipulated otherwise.

SEC. 44. This act * * shall take effect from its passage.

Approved November 28, 1882.

NO. 35.—AN ACT IN ADDITION TO CHAPTER ONE HUNDRED AND FIFTY-EIGHT OF THE REVISED LAWS, RELATING TO THE ORGANIZATION OF RAILROAD COMPANIES AFTER FORECLOSURE.

SECTION

1. Construction of section three thousand four hundred and sixty-two of the Revised Laws as to the issue of preferred or common stock.
2. Liens existing upon two railroads either railroad may provide for extinguishing such liens.

SECTION

3. Property of a railroad organizing under the provisions of this act, subject to taxation; road availing itself of this act shall be deemed to have waived any claim for exemption from taxation before existing.
4. To take effect.

It is hereby enacted by the General Assembly of the State of Vermont :

SEC. 1. Section three thousand four hundred and sixty-two of chapter one-hundred and fifty-eight of the Revised Laws shall be deemed to authorize the issue of preferred as well as common stock in shares of one hundred dollars each, on such terms and conditions as the majority organizing said company may prescribe in their articles of association.

SEC. 2. When two railroads are encumbered by a lien or liens upon the two roads, the company owning either road may issue bonds on the time and rate of interest provided by section three thousand three hundred and fifty of the Revised Laws, for the purpose of extinguishing such lien or liens, and compromising disputes, and the same may be secured by mortgage or mortgages of both roads by vote of the stockholders of the companies owning said roads.

SEC. 3. The road-bed, equipment, property, stock and effects of every kind of any company organized under this act, or under the provisions of chapter one hundred and fifty-eight of the Revised Laws, shall be subject to taxation under the laws of this state, and any company taking the benefit of this act or of chapter one hundred and fifty-eight of the Revised Laws shall be deemed thereby to have waived any claim for exemption from taxation by reason of any provision in the charter of the original company, or otherwise.

SEC. 4. The act shall take effect from its passage.

Approved November 28, 1882.

No. 36.—AN ACT TO PREVENT UNJUST DISCRIMINATIONS BY RAILROAD COMPANIES.

SECTION.

1. Railroad corporations to give equal and reasonable terms, etc., for transporting persons and property and for use of railroad property; also equal facilities of interchange at railroad connections.
2. Two or more railroads connecting shall charge a uniform price for freight;

SECTION.

- proviso.
3. Penalty for violation of the two preceding sections.
4. This act not to affect the issuing of excursion and mileage tickets as now issued.
5. To take effect.

It is hereby enacted by the General Assembly of the State of Vermont :

SEC. 1. Every person or corporation operating a railroad shall give to all persons reasonable and equal terms, benefits, facilities and accommodations for the transportation of themselves, their agents and servants, and of any merchandise and other property, upon such railroad; and for the use of the depots, buildings and grounds thereof; and, at any point where such railroad connects with another railroad, reasonable and equal facilities of interchange.

SEC. 2. Two or more corporations whose roads connect shall not charge or receive for the transportation of freight to any station on the road of either of them a greater sum than is at the time charged or received for the transportation of the like class and quantity of freight from the same original point of departure to a station at a greater distance on the road of either of them in the same direction.

In the construction of this section the sum charged or received for the transportation of freight shall include all terminal charges, provided that this section shall not be construed as affecting the right of any railroad company to establish such rates on freights shipped over their line in car-load lots from points outside the state to points beyond the state as may seem for their best interests.

SEC. 3. A person or corporation which violates any provision of the two preceding sections shall be liable to the party aggrieved for all damages sustained by reason of such violation, to be recovered in any proper action.

SEC. 4. This act shall not be so construed as to prevent the issuing of excursion, mileage and commutation tickets as the same are now customarily issued.

SEC. 5. This act shall take effect from its passage.

Approved November 29th, 1882.

NO. 37.—AN ACT IN AMENDMENT OF AND IN ADDITION
TO TITLE TWENTY-FIVE OF THE REVISED LAWS RE-
LATING TO TOLLS ESTABLISHED BY RAILROAD COR-
PORATIONS.

It is hereby enacted be the General Assembly of the State of Vermont :

SEC. 1 Section three thousand four hundred and twenty-six of the Revised Laws is hereby amended so as to read as follows :

A railroad corporation may establish for their sole benefit a toll upon all passengers and property carried on their railroad at such rates as are determined by the directors of the corporation, and may regulate such conveyance and transportation, the weight of loads, and other things in relation to the use of the road as the directors determine. But the supreme court, at a session thereof holden in any county in the state, or at a general term thereof on application in writing of three or more freeholders of the state, and due notice thereof to any person or persons operating the railroad or railroads complained of, may from time to time, upon hearing before said court or upon report of three commissioners appointed by said court for that purpose, alter or reduce the toll of any railroad operated in this state. The method of procedure in such cases shall be the same as in case of petition to the supreme court, and, if the application be granted, the court shall make an order fixing the rates of toll and render judgment for the applicants to recover their costs, and in addition

thereto such damages as the court shall deem just. Any person or persons refusing to perform the order of the court in the premises shall be deemed in contempt, and the supreme court shall have full chancery powers for the enforcement of any order, judgment or decree under this act.

Approved November 28, 1882.

NO. 38.—AN ACT IN ADDITION TO AND IN AMENDMENT OF SECTION THREE THOUSAND THREE HUNDRED AND NINETY-NINE OF THE REVISED LAWS, RELATING TO RAILROAD CONNECTIONS.

SECTION

1. Commissioners to fix upon terms and conditions of connection of connecting railroads, shall have power to fix the time for connection of passenger trains.
2. Commissioners named in section one

SECTION

- to determine such connection shall be appointed upon petition of twenty legal voters living on line of road, or upon application of the management of a road.
3. To take effect.

It is hereby enacted by the General Assembly of the State of Vermont :

SEC. 1. The commissioners named in section three thousand three hundred and ninety-nine of the Revised Laws, in addition to the powers delegated to them by said section, shall have power to determine the time or times when the passenger trains of connecting railroads shall connect with each other, having in view the convenience of the traveling public, and may make all necessary rules and regulations respecting the manner of such connections, and report and award thereon as upon other subjects named in said section.

SEC. 2. For the purposes named in section one of this act said commissioners may be appointed upon the petition of twenty legal voters living in any town on the line of any of said railroads as well as upon the petition of the managers of any of said railroads.

SEC. 3. This act shall take effect from its passage.

Approved November 16, 1882.

NO. 39.—AN ACT TO AMEND SECTIONS THREE THOUSAND THREE HUNDRED AND NINETY-ONE AND THREE THOUSAND THREE HUNDRED AND NINETY-TWO OF THE REVISED LAWS, RELATING TO THE OBSTRUCTION OF RAILROAD CROSSINGS.

SECTION

1. Penalty for obstructing railroad crossings by railroad companies through their employees.

SECTION

2. Penalty for obstructing a crossing by a freight train and refusing to remove such obstruction.

It is hereby enacted by the General Assembly of the State of Vermont :

SEC. 1. Section three thousand three hundred and ninety-one, chapter one hundred and fifty-seven of the Revised Laws, is hereby amended so as to read as follows :

If a railroad corporation, or its servants or agents, wilfully or negligently obstruct a public highway or farm crossing by their engines, tenders or cars, such corporation, servants or agents shall be fined not less than five dollars nor more than twenty dollars.

SEC. 2. Section three thousand three hundred and ninety-two, chapter one hundred and fifty-seven of the Revised Laws, is hereby amended so as to read as follows :

A conductor or engineer of a freight train, who allows said train to come to a stop, and by so doing obstructs a public highway, or a farm crossing when required for farm use, and refuses or neglects immediately upon the stoppage of such train to open a sufficient passage for carriages and loaded teams, by disconnection of cars, removal of train or otherwise, unless prevented by breakage of engine or other accident, shall forfeit not less than ten dollars nor more than fifty dollars, to be recovered, with costs, in an action founded on this statute, brought by any person before a justice ; and the fine so collected shall be paid into the treasury of the town in which the offense is committed, for the support of the poor.

SEC. 3. This act shall take effect from its passage.

Approved November 28, 1882.

No. 40.—AN ACT PROVIDING FOR THE DESTRUCTION OF NOXIOUS WEEDS ON RAILROAD LANDS.

SECTION

1. Time when weeds and thistles to be cut.

SECTION

2. Duties of selectmen in case of failure; penalty in case of such failure.
3. To take effect.

It is hereby enacted by the General Assembly of the State of Vermont :

SEC. 1. Every person or corporation operating a railroad in this State shall cause all thistles and noxious weeds growing within the surveyed boundaries of such railroad to be cut and destroyed between the first day of July and the fifteenth day of July in each year.

SEC. 2. In case of failure so to do in any town through which such road passes, the selectmen of such town shall give notice thereof by mail to the principal office of such person or corporation, and in case such failure continues for ten days after such notice, the selectmen of such town shall forthwith cause such thistles and weeds to be cut at the expense of the town, and such town shall thereupon be entitled to recover from such person or corporation the sum of one hundred dollars in an action on the case founded upon this statute, to be recovered before any justice of the peace having jurisdiction of the parties.

Approved November 29, 1882.

ACTS OF 1884.

No. 24.—AN ACT RELATING TO CATTLE-GUARDS.

It is hereby enacted by the General Assembly of the State of Vermont :

SEC. 1. No provisions of law relieving persons owning property adjoining a highway from maintaining fences along the line of such highway, shall be held to relieve persons own-

ing or operating a railroad from maintaining cattle-guards at points where such railroad crosses a highway at grade.

SEC. 2. This act shall take effect from its passage.

Approved Nov. 26, 1884.

NO. 49.—AN ACT TO AMEND SECTION THIRTY-FOUR HUNDRED AND TWENTY-TWO [3422] OF THE REVISED LAWS RELATING TO THE MAINTENANCE OF STATIONS BY RAILROADS.

It is hereby enacted by the General Assembly of the State of Vermont :

SEC. 1. Section thirty-four hundred and twenty-two of the Revised Laws is hereby amended so as to read as follows: Railroad corporations shall establish and maintain depots or station houses with suitable accommodations at such points on their roads as the supreme court shall, on petition for that purpose, adjudge the public good require. Such petition shall be signed by ten freeholders, resident in the town where the depot is proposed to be located, and the petitioners shall give satisfactory security to the petitionee for costs of prosecution as in writs of summons, and such petition may be presented to the supreme court when in session, or to a judge thereof, at any time, and the court or judge may make proper orders of notice of such petition to the parties petitioned against or to be affected by the proceedings for the time and place of hearing the cause, and the judge or court may make the petition returnable to any term of the supreme court wherever sitting and the court may transfer the cause from county to county for the purpose of securing a more speedy hearing and determination thereof.

SEC. 2. This act shall take effect from its passage.

Approved Nov. 19, 1884.

ACTS OF 1886.

No. 20.—AN ACT IN ADDITION TO CHAPTER ONE HUNDRED AND FORTY OF THE REVISED LAWS, IN RELATION TO THE LAYING OF HIGHWAYS.

It is hereby enacted by the General Assembly of the State of Vermont :

SEC. 1. Section three thousand three hundred and eighty-one of Revised Laws is hereby amended so as to read as follows:

“If, after laying out and making a railroad, a turnpike road or other way is so laid out as to cross said railroad, the turnpike road or other way may be so made as to pass under or over or across the railroad, and shall be so made as not to obstruct or injure it, but in case the turnpike road or other way is laid to cross the railroad at grade, the railroad commissioners, on application of the parties owning or operating the railroad, shall, upon notice and hearing, determine whether said crossing ought to be at grade, and if the commissioners determine that the crossing ought not to be at grade, it shall be constructed over or under the railroad and not at grade.”

SEC. 2. “The application to the railroad commissioners provided in section one, may be made at any time before the expiration of the time fixed in the order laying the turnpike or way for beginning work thereon.”

SEC. 3. This act shall take effect from its passage.

Approved November 24, 1886.

No. 21.—AN ACT IN RELATION TO THE SALE OF RAILROADS UNDER A DECREE OR JUDGMENT.

It is hereby enacted by the General Assembly of the State of Vermont :

SEC. 1. Whenever any railroad in this State shall, by the decree or judgment of court, be ordered to be sold, any rail-

road company in this State, whose railroad connects with the railroad to be sold, is authorized to purchase the railroad so ordered to be sold, and upon acquiring the title to said railroad to consolidate said road with its own railroad, and make it a part thereof.

SEC. 2. Any railroad company which shall acquire title to any connecting railroad by purchase, as provided in the preceding section, shall become invested with all the corporate rights and franchises belonging to the company whose railroad has been so sold; and shall hold and operate the same, subject to all the duties imposed by the charter of the company constructing said railroad, and to all duties and obligations of such company by the laws of this state.

SEC. 3. This act shall take effect from its passage.

Approved November 22, 1886.

NO. 22.—AN ACT REGULATING THE EJECTMENT OF PASSENGERS FROM RAILROAD TRAINS.

SECTION

1. Powers respecting ejectment of passengers.
2. Persons responsible for violation of section one.
3. Regular stations, construed.

SECTION

4. Section three thousand four hundred and thirty-four Revised Laws repealed.
5. When to take effect.

It is hereby enacted by the General Assembly of the State of Vermont:

SEC. 1. If a passenger in any train running on any railroad in this State refuses to pay his fare or toll, or is disorderly, or drunk, or refuses to comply with the reasonable regulations of the corporation for the government of passengers, the conductor of the train and the servants of the corporation may put him out of the cars at the nearest regular station on such railway, causing the train to be stopped for that purpose, and conductors, agents, servants, or other officials of any railroad corporation in this state shall in nowise forcibly eject, or cause to be ejected, or put out of any train,

any passenger for non-payment of fare, or for being drunk, or disorderly, except it be at a regular station on such railway.

SEC. 2. All railroad corporations running trains on any railroad in this State, conductors, servants, agents, or other officers of any such railroad shall be held responsible for all injury and damage to persons or property arising by reason of non-compliance with, or a violation of the requirements of section one, of this act, to be recovered in an action on the case.

SEC. 3. Regular stations shall be construed to mean such a one as the law now requires, in section three thousand four hundred and twenty-two, chapter one hundred and fifty-seven, Revised Laws, as amended in section one, of number forty-nine, acts of 1884, Laws of Vermont.

SEC. 4. Section three thousand four hundred and thirty-four, in chapter one hundred and fifty-seven, Revised Laws of Vermont, is hereby repealed.

SEC. 5. This act shall take effect from its passage.

Approved November 24, 1886.

No. 23.—AN ACT TO CREATE A BOARD OF RAILROAD COMMISSIONERS AND TO DEFINE AND REGULATE ITS POWERS AND DUTIES.

SECTION

1. Commissioners, how appointed; their term of office; vacancies in the board, how filled; commissioners to appoint clerk; his term of office and duties; commissioners and clerk to be sworn; persons ineligible to office of commissioners; restrictions upon commissioners and clerk.
2. Quorum; what number to constitute; meetings of the board.
3. Powers of commissioners and clerk; fees of witnesses before the board; how paid; employment of expert by commissioners; additional powers of commissioners; their right to free transportation.
4. Rights of commissioners as to information concerning railroads; refusing access to books, or information, may be summoned before supreme or county court; penalty for violation.
5. Additional powers and duties of commissioners; to what railroads and persons this act applicable.
6. Duties of the board and of railroads respecting accidents.
7. Further duties of railroad commissioners.
8. Their duties in case of failure of prop-

SECTION

- er connections between railroads or of furnishing reasonable accommodations for transportation.
9. Certain acts of commissioners not to impair the rights of any railroad.
10. Recommendations of commissioners respecting the conduct and management of railroads; supreme court empowered to compel compliance with recommendations.
11. Report of commissioners to legislature, what to contain.
12. Duties of commissioners, respecting any acts of Congress concerning interstate commerce.
13. May recommend uniform system of keeping accounts, and making and publishing returns.
14. Report of commissioners to be printed; how distributed.
15. Compensation of commissioners and clerk.
16. Penalty for certain acts or neglects of the commissioners or clerk.
17. Chapter one hundred and fifty-nine Revised Laws, and number forty-eight laws of 1884, and all inconsistent acts repealed.
18. To take effect.

It is hereby enacted by the General Assembly of the State of Vermont :

SEC. 1. There shall be in and for the State of Vermont, a board of railroad commissioners, to consist of three competent persons, and they shall be selected as follows : During the present session of the legislature, the governor, with the advice and consent of the senate, shall appoint three persons as such commissioners. The persons so appointed shall hold such office for the term of two years from and after the first day of December, A. D. 1886. During each biennial session of the legislature hereafter three commissioners shall be appointed in the same manner, who shall hold their offices for the term of two years from the year in which such appointment is made. In case of a vacancy occurring between the biennial sessions of the legislature the same shall be filled by the appointment of the governor. Such commissioners may appoint a clerk to serve during their pleasure whose duty it

shall be to keep a full and faithful record of the proceedings of said board ; to file and preserve at the office of said board all documents and papers entrusted to his care ; to prepare for service such papers and notices as may be required of him by the commissioners and to perform such other duties as the board may prescribe, and he shall have power, under the direction of the board, to issue subpoenas for witnesses and to administer oaths in all cases pertaining to the duties of his office. Such commissioners and clerk shall be sworn to the faithful discharge of the duties of their office before entering upon the same.

No person in the employ of or holding any official relation to any railroad corporation or management, or owning stock, bonds, or other securities in any railroad corporation, or who is in any manner connected with the operation of any railroad within this State, shall be a commissioner under this act, nor shall any person holding either the office of commissioner or clerk personally, or in connection with a partner or agent, render any professional service for, or make or perform any business contract with any person or corporation operating a railroad within this State relating to the business of said railroad except contracts made with them as common carriers, nor shall he directly or indirectly receive from any such corporation any commission, present, or reward, except passes for personal transportation over said railroads.

SEC. 2. Any two of said commissioners shall constitute a quorum for the transaction of any of the business or duties of said Board, and meetings of the Board may be held at any time or place within the State upon call of any member of the Board, and after a reasonable notice by mail or telegraph to both of the other members.

SEC. 3. Said Board shall have power so far only as is necessary for the performance of its duties under the law of this State to examine the books, accounts, and papers of any corporation, or person operating any railroad within this State ;

to cause witnesses to be subpœnaed, administer oaths to them and if any person shall disobey said subpœna, or refuse to answer any proper and legal question, or refuse to show to said commissioners the books, accounts, or papers of any corporation, or person operating a railroad within this State, when legally required so to do, said commissioners may apply to any judge of the supreme court, who shall have authority to summon said person before him, and enforce his attendance and examination, and exhibition of said books, accounts, and papers, if said judge shall find the same to be proper and necessary to the performance of the duty of the office of said commissioners. The fees of witnesses before such Board shall be the same as for witnesses before the county court, and the expense of obtaining the attendance of witnesses shall be paid by the treasurer of the State upon allowance by the auditor of accounts. Said commissioners may employ an engineer, accountant, or other expert in case they shall deem such service important in the conducting of any investigation required to be made by them by law. Said commissioners shall have the right in their official capacity to enter during business hours the office, depots, and cars, and upon the railroad, of any railroad company within the State so far as may be necessary in the discharge of the duties of their office, and said commissioners and their clerk shall be entitled to free transportation upon all railroads in this State while in the performance of the duties of their office.

SEC. 4. Every corporation or person operating a railroad within this State shall at all times on request furnish the railroad commissioners any and all information requested by them concerning the condition, operation, and management of such railroad, and the rates of fare and charges for transportation made. But said commissioners shall not give publicity to such information as may be obtained by them under the provisions of this act, except so far as is necessary in the reports to the legislature, or in judicial proceedings, unless

specially required so to do by law. Every corporation or person operating railroads in this State, refusing to said commissioners access to the books, accounts, or papers of any railroad, so far as provided in section three of this act, or failing or refusing to furnish any return, reports, or information lawfully required by them, or who shall wilfully hinder, delay, or obstruct the said commissioners in the discharge of any of the duties imposed upon them by this act, may be summoned before any supreme or county court sitting in any county in the State upon six days' notice, and said court shall make such orders, after hearing the parties, as may be necessary to carry into effect the provisions of this act. And if any person, in making returns to said commissioners, or furnishing any information, or making statements to them on oath when required by law, or in giving testimony before said Board as a witness, shall be guilty of wilful falsehood, he shall be deemed guilty of perjury and be punished accordingly.

SEC. 5. Said commissioners shall have the general supervision of all railroads and railways within this State, so far as necessary to enable them to perform the duties and exercise the powers imposed and conferred upon them by this act, and shall examine the same and keep themselves informed as to their condition, and the manner in which they are operated, with reference to the security and accommodation of the public, and the compliance of the corporations or persons operating the same with the provisions of their charter, and the laws of this State. And the provisions of this act shall apply to all railroads and railways within this State operated by steam power, and to the corporations, receivers, trustees, directors, lessees, or others owning or operating the same.

SEC. 6. It shall be the duty of said board of railroad commissioners to investigate the causes of any accident on a railroad resulting in loss of life, and also of any accident not so resulting which in their judgment shall require investigation,

and to make public their conclusions thereon. It is hereby made the duty of the general superintendent or manager of each railroad in the State to inform said Board of every accident resulting in loss of life, or serious injury to person or persons, immediately after its occurrence. Before proceeding with the investigation of the causes of any accident the Board shall give to the corporation or person operating such railroad reasonable notice of the time and place of hearing.

SEC. 7. Whenever in the judgment of the railroad commissioners it shall appear that any corporation or person owning or operating any railroad within this State has violated any constitutional provision or law, or neglects in any respect or particular to comply with the terms of the charter of said corporation, or with the provisions of any of the statute laws of the State, or fails in any respect to properly provide for the security of the public, or unjustly discriminates in its charges for transporting passengers or freight, or usurps any authority not granted by its charter, or wilfully refuses to comply with any reasonable recommendation of said Board of commissioners, or enters into any combination or conspiracy with any other person, persons, or corporation whereby the rates of charge for transportation of freight or passengers, or the cost of commodities is unduly increased, said commissioners shall give notice thereof in writing to such corporation or person, and if the act complained of is continued after such notice the Board shall report the same to the then next session of the General Assembly, and if in their judgment such action is required, may at any time make application to the supreme or county court for any remedy warranted by law.

SEC. 8. In case there should be failure of proper connection between railroads in this State, or in case proper and reasonable accommodations shall not be furnished for the transportation of passengers or freight, the commissioners

shall inquire into the cause or causes of the same, after reasonable notice to the corporation, or persons interested, and shall make such recommendations in respect thereto as shall seem to them just, and in every case of investigation or hearing under the provision of this section the commissioners shall forthwith make public the conclusions reached by them, together with a brief statement of their reasons for the same and the recommendation, if any, made by them in respect thereto.

SEC. 9. No request or advice of the railroad commissioners nor any investigation, report, or recommendation made by them shall have the effect to impair in any manner or degree the legal duties, obligations, or rights of any railroad corporation, or persons operating any railroad, or their legal liability for the consequences of their act, or of the neglect or mismanagement of any of their agents or servants, and the same shall not be received in evidence in any judicial tribunal against said railroad corporation or person.

SEC. 10. Whenever in the judgment of said railroad commissioners, after investigation and hearing upon reasonable notice to all persons interested, it shall appear that repairs are necessary upon any railroad within this State, or that any addition to the rolling stock, or any addition to or change in the stations or stations houses, should be afforded, or whenever in the judgment of said Board, after such examination and hearing, it shall appear that any change in the rates of fare for transporting freight or passengers, or that any change in the manner of operating the road and conducting its business is reasonable and expedient, in order to promote the security, convenience, and accommodation of the public, or to prevent violations of law, or unjust discriminations, usurpations, or extortions, the said Board, after giving notice of its recommendations as aforesaid, may fix a time within which the same shall be made, which time the Board may extend. It shall be the duty of the corporation, person, or persons owning or

operating said railroad, to comply with such recommendations of said Board as are just and reasonable.

The supreme court sitting as a court of equity shall have power in all cases of recommendations by said Board to compel compliance therewith, if in the judgment of the said supreme court, upon hearing and legal proof such recommendations are just and reasonable.

SEC. 11. The board of railroad commissioners shall make a biennial report to the legislature containing a record of all their proceedings under this act, and shall include therein such statements, facts, and explanations as will disclose the actual working of the system of railroad transportation in its bearing upon the business and prosperity of the State, and such suggestions in respect thereto or in respect to the condition, affairs, or conduct of any of said railroads, or in respect to the general railroad policy of the State, or the amendment of its laws, or any new legislation as may seem to them appropriate ; and also statements showing the receipts and expenditures of each and every railroad in this State for the two preceding years, and from what source such receipts were derived, and for what such expenditures were made ; also the condition of such road and its equipment, and such other matters as the commissioners may deem appropriate and important for the information of the legislature.

SEC. 12. If at any time hereafter the Congress of the United States shall pass any acts upon the subject of interstate commerce, or appoint commissioners to make regulations upon that subject, the railroad commissioners appointed under this act shall, as far as consistent with the laws of this State, conform to the laws of the general government, and the recommendations of the national board upon the subject of transportation of passengers and freight, and the subject of said acts and recommendations.

SEC. 13. The board of commissioners may recommend a uniform system of keeping railroad accounts and making and

publishing returns of the condition of railroads so as to conform as far as practicable to a uniform system in common with the other New England States, New York and Canada. Railroad companies shall adopt the system of accounts and the manner of making returns recommended by the commissioners and conform to the same so far as is consonant with the method of business and connections of said railroads, and the returns shall be made under oath. The system now in use may be followed by the corporations and persons operating railroads until they shall make changes in the direction of uniformity as aforesaid.

SEC. 14. Said railroad commissioners shall cause not exceeding six hundred copies of their biennial report to be printed at the expense of the State, which shall be audited by the auditor of accounts. One copy of said report shall be furnished to each member of the legislature, and the remainder thereof shall be distributed under the direction of the commissioners.

SEC. 15. Said railroad commissioners shall be entitled to receive in full payment for their services, the sum of eight dollars per day each, together with their actual expenses while engaged away from home in the performance of their duties. The clerk of said board shall be entitled to receive in full payment for his services the sum of five dollars per day, together with his actual expenses while engaged away from home in the performance of his duties. Said commissioners and clerk shall be supplied with necessary stationery and postage. The compensation and expenses of the Board and its clerk shall be audited and allowed by the auditor of accounts, provided, however, that the whole expense of said commissioners and their clerk, and including also the service of experts, witness fees, printing, and stationery shall not exceed five thousand dollars per year. All claims arising under this act, and audited as hereinfore provided, shall be

paid by the treasurer of the State, upon the order of the auditor of accounts.

SEC. 16. If any commissioner or clerk of the said board directly or indirectly receive any compensation or pay for any service, or extra service, or for any neglect of service from any one but said treasurer he shall be deemed guilty of a misdemeanor, and on conviction thereof he shall be subject to a fine not exceeding one thousand dollars, or to imprisonment in the state prison not exceeding six months, in the discretion of the court ; provided, however, that the clerk may receive the usual fees for copies of any records or papers in his office from any person calling for the same.

SEC. 17. Chapter one hundred and fifty-nine Revised Laws and number forty-eight of the laws of 1884, and all acts and parts of acts inconsistent with this act are hereby repealed.

SEC. 18. This act shall take effect from its passage.

Approved November 22, 1886.

ACTS OF 1888.

NO. 17.—AN ACT TO PREVENT UNJUST DISCRIMINATIONS BY RAILROAD COMPANIES.

It is hereby enacted by the General Assembly of the State of Vermont :

SEC. 1. Every company or corporation operating a railroad in this state, shall give to every station upon its line when so requested in writing by twenty-five legal voters and freeholders of the town, city or village in which such station is situated, the same and equal accommodations and facilities as to market days and market day rates of fare to and from such station, on any regular train upon the day of the week requested, as is given by such company or corporation to any station upon its line.

SEC. 2. Any violation of this act shall be construed to be an unjust discrimination within the meaning of section 7 of No. 23 of the laws of 1886, and shall be punished by a fine not exceeding five hundred dollars and costs.

SEC. 3. This act shall take effect from its passage.

Approved November 27, 1888.

NO. 18.—AN ACT IN ADDITION TO CHAPTER TWO HUNDRED AND TWO OF THE REVISED LAWS, IN RELATION TO SUNDAY TRAINS.

It is hereby enacted by the General Assembly of the State of Vermont :

SEC. 1. The board of railroad commissioners may authorize the running of any railroad, of such through trains on Sunday, as, in the opinion of the board, the public necessity and convenience may require, having regard to the due observance of the day.

Approved November 27, 1888.

NO. 19.—AN ACT TO AMEND SECTION FOURTEEN OF ACT TWENTY-THREE LAWS OF 1886, RELATING TO THE REPORT OF THE RAILROAD COMMISSIONERS.

It is hereby enacted by the General Assembly of the State of Vermont :

SEC. 1. Section 14 of act No. 23 of the Session Laws of 1886, is hereby amended by striking out the word "six" in the second line, and inserting in the place thereof the word *ten*.

Approved November 27, 1888.

NO. 20.—AN ACT TO AMEND NUMBER TWENTY-THREE OF THE LAWS OF 1886, ENTITLED AN ACT TO CREATE A BOARD OF RAILROAD COMMISSIONERS AND TO DEFINE AND REGULATE ITS POWERS AND DUTIES.

It is hereby enacted by the General Assembly of the State of Vermont :

SEC. 1. Section six of act number twenty-three of the acts of 1886, is hereby amended by adding thereto the following words :—

And shall also at the same time notify the state's attorney of the county in which said accident happened, and at said time and place of hearing, and said state's attorney shall attend and shall represent the state in said hearing, and produce before said board such legal evidence as he judges proper to show the cause of such accident, and shall be allowed five dollars per day and his necessary expenses for each day's attendance before said Board.

SEC. 2. This act shall take effect from its passage.

Approved November 27, 1888.

NO. 21.—AN ACT RELATING TO RAILROAD CROSSINGS.

It is hereby enacted by the General Assembly of the State of Vermont :

SEC. 1. When it shall be necessary for the construction of a railroad, to intersect or cross any public highway, the railroad company may construct said railroad across or upon the same, if the railroad commissioners shall judge it necessary, but said railroad company shall restore said highway thus intersected, to its former state, or in a sufficient manner not to impair its usefulness, as near as practicable ; and in case any highway is so located that said railroad cannot be judiciously constructed across or upon the same without interfering therewith, said company may, with the

consent of said commissioners, cause such highway to be changed or altered so that said railroad may be made on the best site for that purpose, but said company shall put such highway as near as practicable in as good situation and repair as it was previous to such alteration under the direction of said commissioners. But such construction or alteration shall not be made without notice to all parties interested and a hearing before said commissioners.

SEC. 2. The railroad commissioners may, when, in their opinion public safety requires an alteration of any highway crossed at grade by a railroad, after a hearing had upon such notice as they shall deem reasonable to the railroad company owning or operating said railroad and to the selectmen of the town or mayor of the city within which said highway is situated, and to the owner of land adjoining said crossing, order such alterations in such highway as they shall deem best, and shall determine and direct by whom such alterations shall be made, at whose expense, and in what time; provided that such alterations as are made at the primary instance of the railroad commissioners shall not be ordered at the rate of more than one a year in any one county on any one railroad. Railroad companies may take land for the purposes of this section, in the manner provided by law for the taking of lands by railroad companies.

SEC. 3. The railroad commissioners may apply to the supreme court sitting in any county, for the enforcement of said order; a notice of which application shall be given to the railroad company at least twelve days before hearing. And the supreme court shall have equity powers in the premises; provided the supreme court on the hearing of said application shall have power to revise or modify the order of the commissioners on the facts in the premises, and for that purpose may order the taking of testimony in such manner as they may think best for the purpose of reviewing said order.

SEC. 4. Sections 3389 and 3390 of the Revised Laws and all acts and parts of acts inconsistent with this act, are hereby repealed.

SEC. 5. This act shall take effect from its passage.

Approved November 27, 1888.

NO. 22.—AN ACT TO PREVENT ACCIDENTS AND LOSS OF
LIFE ON RAILROADS.

It is hereby enacted by the General Assembly of the State of Vermont :

SEC. 1. Every railroad company operating a railroad or part of a railroad in this State, shall, before the first day of December, 1889, adjust, fill or block with a wooden block or wedge, the frogs, switches and guard-rails on its tracks, with the exception of guard-rails on bridges, so as to prevent the feet of its employees from being caught therein. The work shall be done to the satisfaction of the railroad commissioners evidenced by the certificate of their clerk.

Approved November 28, 1888.

NO. 23.—AN ACT RELATING TO HEATING PASSENGER CARS.

It is hereby enacted by the General Assembly of the State of Vermont :

SEC. 1. After December 1, 1889, no passenger, mail or baggage cars, other than a mixed train, on any steam railroad in this state, shall be heated by any method or heater, unless such method, or the use of such furnace or heater, shall first have been approved in writing by the board of railroad commissioners ; provided that nothing in this act shall authorize the commissioners to prohibit the heating of cars by steam from the engines.

Approved November 28, 1888.

No. 24.—AN ACT ESTABLISHING A UNIFORM RATE FOR
MILEAGE TICKETS.

It is hereby enacted by the General Assembly of the State of Vermont :

SEC. 1. All corporations, companies or persons operating railroads within this state, and all foreign railroad corporations, companies and persons operating, managing or controlling any railroad which is wholly or partly located within this State, shall procure, and at all times keep for sale at the principal stations on their roads, mileage tickets in the form of coupon books which shall contain not more than one thousand coupons; and the conductors on the trains shall detach from such coupon book one coupon for each mile traveled by the passenger in satisfaction of fare ; provided that no single passage shall be granted for less than five miles of said one thousand miles coupon ticket.

SEC. 2. Such coupon book shall be good to all the members of a firm or family, if designated and named in the coupon book at the time of the sale and delivery of the same. Said book shall be of a convenient size.

SEC. 3. The railroad commissioners may in their discretion exempt any railroad from the provisions of this act.

Approved November 28, 1888.

No. 25.—AN ACT IN AMENDMENT OF SECTION SIX OF
NUMBER TWENTY-THREE OF THE LAWS OF 1886.

It is hereby enacted by the General Assembly of the State of Vermont :

SEC. 1. Section six of an act entitled " An act to create a board of railroad commissioners, and to define and regulate its powers and duties," approved November 22, 1886, is hereby amended so as to read as follows :

SEC. 6. It shall be the duty of said board of railroad

commissioners to inquire into the causes of any accident on any railroad, resulting in loss of life, and also of any accident not so resulting, which shall, in their judgment, demand such inquiry; and if, in their judgment, the public good shall require an investigation and hearing, they shall give to the corporation or person operating such railroad, and to the state's attorney for the county within which said accident occurred, notice of the time and place of such investigation and hearing. Said state's attorney shall attend and conduct such hearing and investigation in behalf of the state and the public; and the commissioners shall make public their conclusions thereon. It is hereby made the duty of the general superintendent or manager of each railroad doing business in this state to inform said board of every accident resulting in loss of life and of serious injury to person or persons, immediately after its occurrence; and in case such accident results in loss of life or serious injury to the person of a passenger, such information shall be given by telegraph.

SEC. 2. This act shall take effect from its passage.

Approved November 26, 1888.

NO. 26.—AN ACT RELATING TO GRADE CROSSINGS AND
FLAG-MEN.

It is hereby enacted by the General Assembly of the State of Vermont :

SEC. 1. The railroad commissioners, when requested in writing by three or more freeholders of any city or village in the State, to order a gate or electric signal to be erected, or a flagman to be stationed at any railroad crossing at grade within their respective cities or villages, shall visit such place, first giving the parties making such request, and the railroad company, notice thereof, and if the public safety require it, shall order the company operating said railroad to erect and maintain a gate or gates, or electric signal, or to keep a flag-

man at said place, or to do any other act at said place needful for the protection of the public, and may specify when said gate or gates shall be opened and closed, or when a flagman shall be on duty, and may change any such order when they deem it necessary, first visiting the place and giving the railroad company and the parties making such request an opportunity to be heard thereon.

SEC. 2. The railroad commissioners may apply to the supreme court sitting in any county, for the enforcement of said order ; a notice of which application shall be given to the railroad company at least twelve days before hearing. And the supreme court shall have equity powers in the premises, provided the supreme court on the hearing of said application shall have power to revise or modify the order of the commissioners on the facts in the premises, and for that purpose may order the taking of testimony in such manner as they may think best for the purpose of reviewing said order.

SEC. 3. This act shall take effect from its passage.

Approved November 26, 1888.

NO. 27.—AN ACT IN AMENDMENT OF SECTION 3386 OF THE REVISED LAWS RELATING TO SIGN BOARDS AT RAILROAD CROSSINGS.

It is hereby enacted by the General Assembly of the State of Vermont :

SEC. 1. Section 3386 of the Revised Laws is hereby amended so as to read as follows :—

“ Every railroad corporation shall keep and maintain at every public highway or street where the same is crossed by the railroad on the same level, warning boards of such a description as the railroad commissioners may approve.

“ The warning boards or crossing signs now in use on the

several railroads in this State may be used while they remain legible and in good condition and until it is necessary for the same to be renewed."

SEC. 2. This act shall take effect from its passage.

Approved November 26, 1888.

INDEX TO RAILROAD
LAWS

AND

GENERAL INDEX.

INDEX TO RAILROAD LAWS.

	PAGE.
Adverse possession, gives no title against company.....	v
Accidents, to be investigated.....	lxxiv, lxxv
an act to prevent.....	lxxxiii
cause to be inquired into.....	lxxxiv, lxxxv
to be investigated in discretion of Board.....	lxxxv
State's attorney to be notified of investiga- tion	lxxxi, lxxxv
Reported to Board by telegram, when.....	lxxxv
Appeals to County Court	xxiv, xxvi
Appraisal of land damages	xxiii
Appropriation for Railroad Commission.....	lxxviii
Articles of association, how formed.....	vii
subscriptions to.....	vii
to be filed and recorded.....	viii
Assessments and sale, how notified.....	xvii, xviii
Blocking of Frogs, switches and guard-rails provided for...	lxxxiii
Books of subscription, how opened, etc.	x
Bonds, how issued and sold.....	xviii
Bondholder's right to redeem, after sale.....	lv
Board of Railroad Commissioners may examine books and accounts, summons witnesses, etc.....	lxxii, lxxiii
may enter cars, offices, etc.....	lxxii
have general supervision for performance of duties	lxxiv
to investigate accidents.....	lxxiv, lxxv
Cattle-guards at crossings.....	xxxvi, lxvi
Change of location of railroad, how made.....	ix, xxvii, xxviii
effect of, to be filed.....	ix
Clerk of Board of Railroad Commissioners, appointment, duties, and compensa- tion of.....	lxxi, lxxviii, lxxix
Commissioners, Board of Railroad, appoint- ment, term, vacancies, clerk, qualifica- tions, quorum, powers, duties, trans- portation, compensation, etc.....	lxxi, lxxii, lxxviii, lxxix

	PAGE.
Conclusions of Board of Railroad Commissioners to be made public.....	lxxv, lxxvi
Connection of passenger-trains, how regulated.....	lxiv, lxxv
with other roads.....	xxxiii, xxxv
Coupon Mileage Books shall be good for firm or family.....	lxxxiv
Crossings, unsafe, how remedied.....	xxxi, xxxii
obstructed, remedy and penalty.....	xxxii, lxxv
stopping trains at.....	xxxv, xxxvi
of highways at grade, how changed.....	lxviii
how altered, expense apportioned.....	lxxxii
Railroad Commissioners' order may be revised by Supreme Court.....	lxxxii
Secs. 3389 and 3390, Revised Laws repealed.....	lxxxiii
Flagmen, etc., at Grade Crossings.....	lxxxv, lxxxvi
Railroad Commissioners may order.....	lxxxv, lxxxvi
Sign Boards at Railroad Crossings to be approved by Railroad Commissioners.....	lxxxvi, lxxxvii
Crossing, or connection with other roads.....	xxxiii, xxxv
Damages, land, not paid right of action.....	xxvi
Depots, how maintained.....	xxix, lxvii
Directors, majority to reside in State.....	x
Discriminations, unjust, how prevented.....	lxii
Discrimination in charges, prohibited.....	lxxv
unjust, prohibited.....	lxxxix
Ejecting passengers from cars, where.....	lxix
Fares and freights, how regulated.....	lxiii
passenger and freight.....	xl, xli
Farm crossings.....	xxxvi
Fences.....	xxxvi, xxxvii
Flagmen, etc., at Grade Crossings.....	lxxxv, lxxxvi
Railroad Commissioners may order.....	lxxxv, lxxxvi
Foreclosure, re-organization after.....	li, lxi
rights of bondholders to redeem.....	lv, lvi
organization after.....	lxi
Freights, fares, or charges.....	xl
Gates, Flagmen or Electric Signals at grade crossings.....	
Government, meetings and election of officers.....	xiv, xvi
Guaranteed stock, preferred and increased.....	xvi, xvii
Heating cars, act relating to.....	lxxxiii
Highway or turnpike, how altered.....	xxviii
may be crossed.....	xxix

	PAGE.
Incorporation under general law, how	vii
general provisions concerning	xii
Investigation of fatal accidents required	lxxiv
Land, right to take, and damage	xxiii, xxv
Leases, not to affect accrued rights	vi
how to be recorded, etc.	xix
Lessees, non-resident, how to serve notice on	li
Location and survey of roads, steps to same	xxi
Managers, lessees, trustees, etc., subject to law	v
Mails, United States, terms for carrying, how determined	xli
Mileage Tickets, act establishing uniform rates for	lxxxiv
Market Days, and Market Day Rates, regulated	lxxxix
Penalties for violating regulation	lxxx
Mortgages and leases, recording copies	xix
when two, how to proceed	lvi
Noxious weeds, destruction of, required	lxvi
Obstructing crossings, forbidden and penalty	xxxii, lxv
Obstruction to private way, damages for, how ascertained and paid	xxv
Order of Railroad Commissioners may be enforced by Supreme Court, when	lxxxvi
Organization of railroad companies	xiii
after foreclosure, how	lxi
Passenger trains, at junctions, how to connect	lxiv
Police, railroad, law governing	xlvi
Powers of corporations under general laws	viii
Preferred and guaranteed stock, in companies, increased how	xvi
Proceedings at corporation meetings to be minuted	xi
Proxies in same	x
Proceedings in chancery respecting damages	xxv
Quorum, two commissioners to constitute	lxxii
Railroad Commissioners, act creating Board of	lxxi, lxxxix
To make biennial report to Legislature	lxxvii
To have certain number biennial reports printed	lxxviii, lxxx
May fix rates of fare, passenger and freight, pre- vent discriminations, etc.	lxxvi
To conform to Interstate Commerce Act	lxxvii
May recommend uniform system of accounts	lxxvii, lxxviii
Services, and pay of same	lxxviii
Forbidden other compensation; penalty for receiving	lxxix

Railroad Commissioners :	PAGE,
To investigate and report on fatal accidents...	lxxiv, lxxv
Two to constitute a quorum.....	lxxii
Powers defined and how enforced.....	lxxi, lxxii
And clerk entitled to free transportation.....	lxxiii
Jurisdiction limited to steam power railroads.....	lxxiv
To give notice of investigations.....	lxxv
To report violations of law, or failure to comply with recommendations, to General Assembly, or to apply to Supreme or County Court for remedy	lxxv
To investigate, on notice, failure of connec- tions and accommodations, and report....	lxxv, lxxvii
Railroad Commissioners, Order of, may be enforced by Supreme Court, how.....	lxxxvi
Railroad companies, how organized.....	xiii
subject to laws.....	v
may lease other roads.....	vi
Railroad crossings, obstruction prohibited and penalty....	xxxii, lxv
may be made with consent of Com- missioners.....	lxxxi, lxxxii
Railroad charter, State may purchase, how.....	vi
Railroads, cannot subscribe to stock.....	x
sale of, on judgment or decree.....	lxviii, lxix
Railroad laws, subject to change or repeal.....	vi
Railroad police, laws concerning.....	xl v
Rates, Market Day, regulated.....	
Receiver, railroad, in another State, procedure.....	lvii
Record required before taking land.....	x
Regulations for running trains.....	xli
Report, biennial, to be made by Board of Railroad Commis- sioners.....	lxxvii
Report of Commissioners, number that may be printed.....	lxxx
Revenue, for State expenses, railroads taxed for.....	lix, lx
Road, how may be laid.....	x
Route, to be designated in charter.....	xiii
Recommendations for proper connections of trains.....	lxxv, lxxvi
of Board of Railroad Commissioners to be made public, with reasons, when.....	lxxvi
of Board not to affect corporate rights or liability.....	lxxxvi
of Board not evidence against corporations	lxxxvi
may be reviewed by Supreme Court	lxxvi, lxxvii

	PAGE.
Sale of railroads on judgment or decree.....	lxviii, lxix
Shares are personalty subject to levy and sale.....	xvii
may be assessed.....	xvii
Sign-boards at crossings.....	xxxix
Sign-boards at Railroad Crossings to be approved by Railroad Commissioners.....	lxxxvi, lxxxvii
State may purchase charter, how.....	vi
Stock increased, how.....	xi
subscriptions and votes.....	xiv
State's Attorneys, to be present at Investigations of Accidents.....	lxxxix
Station-houses, maintenance of.....	xxix, lxvii
Stopping of trains at crossings.....	xxxv, xxxvii
Stock, preferred and common, how authorized and issued.....	lxi
Stockholders, liability, etc., defined.....	xviii
Subscription-books, how opened and conducted.....	x
Sunday Trains, certain may be authorized.....	lxxx
Taxation of railroads, Act of 1882.....	lix, lx
Tolls, passenger-fares allowed.....	xl
Trustees, removal of, and proceedings after foreclosure.....	xliv
non-resident, service of process on.....	li
Turnpike or highway, how altered.....	xxviii
may be crossed by railroad.....	xxix
United States mail, how carried.....	xli
Voting on stock, how regulated.....	x
Weeds, noxious, to be destroyed.....	lxvi

GENERAL INDEX.

	PAGE.
Accidents, General Statement of	5
Tabulated Statement of	6, 7, 8, 9, 10, 41, 42
Classification of Causes	8, 9
Summary of	10
to Trespassers	10
Special Reports on	125-176
Accidents Investigated, Special Reports on :	
Collision, Grade Crossing at Swanton	126-128
Rear, Passumpsic (Drs. J. R. Nelson and T. R. Stiles)	151-155
Near Roxbury (John Averill and Roswell Dewey)	167-169
Center Rutland	169-172
Fatal, Johnson, Stuart M. Baker	125
Burlington, E. H. O'Neill	128, 129
Near East Fairfield, Richard R. Dodge	129, 130
Hartford, Alexander Grant	130-132
Walden, Judson J. Rashaw	132, 133
Hyde Park, Daniel L. Durkee	133, 134
Chester, Joseph Martin	134, 135
St. Johnsbury, Mrs. R. K. Richards	135-137
Proctor, John Erickson	137
Burlington, William Gower	137-139
St. Albans, Charles H. Meyers	139, 140
North Concord, E. C. Cowen	140, 141
Near Waterbury, John Eddy	141, 142
Brattleboro, Mrs. William Ahern	142, 143
Montpelier, Joseph Slattery	143, 144
Pownal, John Jepson	144, 145
Rutland, Solomon Latrimouille	146, 147
Rutland, Mrs. Margaret S. Leary	147, 148
Middlebury, John White	149-151
White River Junction, Misplaced Switch, Lewis Harris	155-158
Newport, S. W. Dow	158-160

	PAGE.
Accidents, Fatal, Brooksville, Head Collision, H. A. Blodgett, William Embery, George Robeson, W. W. Allen, Henry Perron.....	160-164
West Concord, Charles C. Blood.....	164, 165
Near Bradford, Fredery Staples.....	165-167
Fair Haven, Mrs. Ellen Humphrey.....	172-174
Newport, James Fuller.....	174-176
Accident Inquiries.....	177-200
William Ober, W. R. Worthington, Ben- jamin Barber, John Ryan.....	177
J. N. Kellogg, J. C. Reynolds, C. H. Bolles, H. C. Gainey, J. McBeigh, A. Burrabee.....	178
Mrs. Aiken, F. Flannery, C. H. Wood, Ed- ward Bruyea.....	179
Martin McCalvin, Jere Malampy, H. Brooks.....	180
R. Adams, Jolin Rooney, Michael Cronin German Laborer, Patrick Collins.....	181
Passumpisic Collision, Edward Clark, Chas. Munson.....	182
Ernest Alexander, Frank Day, Aldace La- Forest.....	183
James Ap-John, Michael McGrath, Charles Daley.....	184
J. E. Marcott, R. A. DeChambeau, Mrs. Ladd.....	185
Frank O. Smith, Mrs. Samuel Bowtelle, John Paquette.....	186
Brandon Washout, Helen Trumbull, Le- guire girl, Mrs. J. Woodworth P. Mc- Mahon.....	187, 188
Alexander Breaux, Mrs. Esther Gilmore, Fred Nichols, R. A. Tubbs, Thos. Dona- hue and Thomas Donovan.....	189
Charles Sortwell, Truman Kennerson, Per- ley Preston, Hector Berneau, E. M. Ab- bott.....	190
Center Rutland Rear Collision, Matthew Johnson, Jacob Plummer, E. B. Brown, Victor Lamotte, Joseph Lapier, Edward Rich, Frank O. Billings.....	191
N. E. Bonney, W. R. Jameson, Theodore M. Sherman, Harlan P. Kellogg, E. D. Burns, William Daniels.....	192
F. S. Roe, Charles Adams, J. W. Hall, T. B. Kennedy, Carl Erickson, M. T. Smith, A. L. Frisbie, J. Hogan.....	193
John Hosmer, John Brown, Kate Brennan, Charles Whittaker, Wallace Arnold, J. P. Mullen.....	194
Henry Farr, Patrick Hanrahan, George Heon, Michael Sammon.....	195
Eli Dugas, Lewis Mayo, Head Collision at St. Johnsbury.....	196
Walter L. Barney, George Leonard, W. A. Booth, Unknown Man.....	197
Nehemiah French, Head Collision at Olcott	198
	199

	PAGE.
Act No. 25, Laws of 1888, Comments upon.....	6
Addison Railroad, Inspections and Sketch of.....	73-75
Annual Returns and Tables.....	12, 293-696
Ashuelot Railroad, Inspections and Sketch of.....	87, 88
Atlantic and St. Lawrence Railroad, Inspections and Sketch of.....	92-94
Annual Returns of.....	295-302, 498-506
Automatic Freight Train Couplers.....	27-29
Barre Railroad, Inspections and Sketch of.....	49, 50
Bennington and Glastenbury Railroad, Inspections and Sketch of.....	50, 51
Bennington and Rutland Railway, Inspections and Sketch of.....	51, 52
Annual Returns of.....	303-319, 507-521
Blocking of Frogs, Switches and Guard-rails.....	26
Act No. 22, Laws of 1888, Commented upon.....	26
Boston and Maine Railroad System, Inspections and Sketches of.....	52-61
Annual Returns of.....	320-331, 522-533 ; 445-461, 652-668
Brakes, Freight Train.....	30-32
Comments upon.....	30-32
Brattleboro and Whitehall Railroad, Inspections and Sketch of.....	75, 76
Bridge, Bethel, Prof. H. A. Hitchcock's Report on.....	107-110
Lull Brook, Hartland, Prof. R. Fletcher's Report on.....	110-114
East Creek, Rutland, " " " ".....	114-121
Baldwin Dry, " " " ".....	228-231
North Troy, " " " ".....	213-220
Bridges and Depots, General Statement upon.....	23-26
New Type of.....	23
Old, being replaced.....	24, 25
Burlington and Lamoille Valley Railroad, Inspections and Sketch of.....	76-79
Canadian Pacific System, Inspections and Sketch of.....	62-64
Annual Returns of, see South Eastern Railway.....	669-674
Capital Stock, Bonds, Liabilities, Cost of Railroads, etc., Tables of.....	13
Car Heating, Discussion of, and Tabulation of Methods of.....	32-35
Cars, Ventilation of.....	36
Lighting of.....	36, 37
Cattle-Guards, L. G. Trumbull's Complaint on.....	240-243
L. G. Lyman's, " ".....	278-280
Central Vermont System, Inspections and Sketches of.....	64-86
Central Vermont Railroad, Inspections and Sketch of.....	64-73
Annual Returns of.....	332-346, 534-549
Clarendon and Pittsford Railroad, Inspections and Sketch of.....	86, 87
Annual Returns of.....	347-352, 550-557
Collision, Rear, Passumpsic.....	151-155
Head, Brooksville.....	160-164
Rear, Roxbury.....	167-169
Rear, Center Rutland.....	169-172
Commission, Interstate Commerce.....	38-45
Complaints and Petitions, General Statement upon.....	4
Special Reports upon.....	203-289

	PAGE.
Complaint and Petition of Standard Explosives Company (limited).....	203-212
Selectmen of Troy (North Troy Bridge).....	212-223
Selectmen of Swanton (Grade Crossing).....	223, 224
Rev. P. McMillan (Sunday Trains).....	225, 226
H. S. Brookins (Baldwin Dry Bridge).....	226-232
Citizens of Winooski (Depot).....	232-236
Barre Railroad Company (Grade Crossing).....	236-240
L. G. Trumbull (Fences and Cattle-Guards).....	240-243
Grand Trunk Railway Co. (Mileage Books).....	244, 245
Citizens of Ryegate (Grade Crossings).....	245-249
Henry A. Winship (Freight Rates on Coal).....	249
Thomas C. Keyes, " " ".....	249
Citizens of Island Pond (Grade Crossing).....	250-252
St. Johnsbury and Lake Champlain Railroad Company (Grade Crossing).....	252-255
W. O. Ray (Freight Rates).....	255-257
Rev. Henry S. Archibald (Passenger Train Connections).....	257-262
Complaint, Selectmen of Newport (Grade Crossings).....	262-263
Citizens of Essex (Hog Car Nuisance).....	263-266
Citizens of Middlebury (Sunday Train Disturbance).....	266-272
Citizens of Montpelier (Grade Crossing).....	272-275
Citizens of Brattleboro " ".....	275-278
Lowell G. Lyman (Fences and Cattle-Guards).....	278-280
L. G. Trumbull (Farm Crossing).....	280-282
Selectmen of Rutland (Highway Crossing).....	282, 283
St. Johnsbury and Lake Champlain Railroad Company (Grade Crossing).....	283, 284
John B. Hay (Discrimination in Fares).....	285-288
Pittsford and Rutland Railroad Company (Grade Crossings).....	288, 289
Conclusion of Report.....	45, 46
Conference, Interstate Commerce and State Railroad Commissions.....	38-42
Connecticut and Passumpsic Rivers Railroad, Inspections and Sketch of.....	52-57
Annual Returns of.....	320-331, 522-533
Connecticut River System, Inspections and Sketches of.....	87-89
Annual Returns of, see Vermont Valley Railroad.	
Consolidation.....	37, 38
Cost of Carrying each Ton Freight per Mile.....	19, 20
Construction of Railroads.....	10
Couplers, Freight Train.....	27-29
Crossings, (See Grade Crossings).....	282, 283
Decision, Abolishing Grade Crossings at Dorset.....	291, 292
Delaware and Hudson System, Inspections and Sketch of.....	90, 91
Annual Returns of, see Rensselaer and Saratoga Railroad.....	353-372, 587-605
Depots and Bridges, General Statement upon.....	23-26
Dividends.....	12
Earnings, Expense, Income, etc., Tabulation of.....	14, 15
Employes, Wages of, Tables.....	21, 22

	PAGE.
Explosives, Transportation of.....	209-212
Fares, Alleged Discrimination in.....	285-288
Passenger, Comment upon.....	16
Passenger Revenue, Table of.....	17, 18
Passenger, Received per Mile.....	17, 18
Fitchburg Railroad (Western Division), Inspections and Sketch of.....	91, 92
Annual Returns of Whole Line.....	373-401, 558-586
Freight Rates on Coal.....	249
Cheese.....	255-257
Freight Rates and Revenue.....	19, 20
Freight Train Couplers, Automatic.....	27-29
General Comment upon.....	27-29
Brakes.....	30, 32
Frogs, Switch and Guard-rail Blocking.....	26
Grade Crossing, Barre Village.....	236-240
Ryegate, Abolished.....	245-249
Island Pond.....	250-252
Fletcher.....	252-255
Newport.....	262, 263
Montpelier.....	272-275
Brattleboro.....	275-278
L. G. Trumbull's Farm.....	280-282
Hardwick.....	283, 284
Rutland.....	288, 289
Dorset, Abolished.....	291, 292
Grand Trunk System, Inspections and Sketch of.....	92-94
Annual Returns of, see Atlantic and St. Lawrence Rail- road.....	
Petition of.....	244, 245
Hearings and Decisions, General Statement upon.....	4
Hearings on Complaints and Petitions.....	203-292
Heating Passenger Cars.....	32-35
Hoosac Tunnel and Wilmington Railroad, Inspections and Sketch of.....	94, 95
Annual Returns of.....	402-411, 606-616
Inspections, Special Report of, by H. A. Hitchcock, C. E.,...	105
Special Reports.....	107-121
Inspections and Sketches of Railroads:.....	49-103
Barre.....	49, 50
Bennington and Glastenbury.....	50, 51
Bennington and Rutland.....	51, 52
<i>Boston and Maine System</i>	52-61
Connecticut and Passumpsic Rivers.....	52-57
St. Johnsbury and Lake Champlain.....	57-61
<i>Canadian Pacific System</i>	62-64
South Eastern Division—Newport and Rich- ford.....	62-64
<i>Central Vermont System</i>	64-86
Central Vermont.....	64-73
Addison.....	73-75
Brattleboro and Whitehall.....	75, 76
Burlington and Lamoille Valley.....	76-79
Missisquoi Valley.....	79-81

Inspections and Sketches of Railroads :	PAGE.
Montpelier and White River	81, 82
New London Northern	82, 83
Rutland	84-86
Clarendon and Pittsford	86, 87
<i>Connecticut River System</i>	87-89
Ashuelot	87, 88
Vermont Valley	88, 89
<i>Delaware and Hudson System</i>	90, 91
Rutland and Washington; Rutland and Whitehall	90, 91
<i>Fitchburg System</i>	91, 92
Western Division	91, 92
<i>Grand Trunk System</i>	92-94
Atlantic and St. Lawrence	92-94
Hoosac Tunnel and Wilmington	94, 95
Lebanon Springs	95, 96
<i>Maine Central System</i>	96-98
Upper Coos	96-98
Montpelier and Wells River	98-100
Woodstock	100-103
Interstate Commerce Act and Commission	38-45
Interstate Commerce Commission, Conference with State Boards	29-42
Laws, Railroad, Appendix	i-lxxxvii
Lebanon Springs Railroad, Inspections and Sketch of	95, 96
Annual Returns of	412-425, 617-632
Lighting Cars	36, 37
Lights and Switches	26, 27
Maine Central System, Inspections and Sketch of	96-98
Annual Returns of, see Upper Coos Railroad.	
Map, Railroad,	Frontispiece and 45
Mileage Books, Petition of Grand Trunk Railway Company Concerning	244-245
Mileage Tickets	16
Mileage of Railroads	11
Missisquoi Valley Railroad, Inspections and Sketch of	79-81
Montpelier and Wells River Railroad, Inspections and Sketch of	98-100
Annual Returns of	426-435, 633-642
Montpelier and White River Railroad, Inspections and Sketch of	81, 82
New London Northern Railroad, Inspections and Sketch of	82, 83
Annual Returns of	436-444, 643-651
Newport and Richford Railroad, Inspections and Sketch of	62-64
Passenger Fares, Local, Comment upon	16
Passenger Fare Revenue, Tables of	17, 18
Passenger Fare Received per Mile	17, 18
Passengers, Cost of Carrying	17, 18
Passenger Train Connections	257-262
Petitions, Complaints and Decisions (see Complaints)	203-202
Physical Condition of Railroads, General Statement of	23
Report of Prof. H. A. Hitchcock upon	105-107
Railroad Construction	10
Mileage	11

	PAGE.
Railroads, Physical Condition of.....	23
Consolidation of.....	37, 38
Railroad Map,.....	Frontispiece and 45
Laws, Appendix.....	i-lxxxvii
Index to.....	xci-xcv
Rates, Complaints upon, Discussed.....	44, 45
Rates and Revenue, Freight.....	19, 20
Rensselaer and Saratoga Railroad, Inspections and Sketch of.....	353-372, 587-605
Report, General Statement.....	3
Report, Special, of H. A. Hitchcock, C. E., on Physical Condition of Railroads.....	103-107
Report, Special, on Bethel Bridge, Prof. H. A. Hitchcock's.....	107-117
Report, Special, on Lull Brook Bridge, Hartland, Prof. Robt. Fletcher's.....	110-114
Report, Special, on East Creek Bridge, Rutland, Prof. Fletcher's.....	114-121
Reports, Special, on Accidents.....	125-176
Special on North Troy Bridge by Prof. Fletcher.....	213-220
Special on Baldwin Dry Bridge by Prof. Fletcher.....	228-231
Returns of Railroads, General Statement upon.....	12
Rutland Railroad, Inspections and Sketch of.....	84-86
Rutland and Washington, and Rutland and Whitehall Railroads, Inspections and Sketches of.....	90, 91
Annual Returns of, see Rensselaer and Saratoga Railroad.	
Sketches and Inspections.....	49-103
South Eastern Railway, Annual Returns of.....	609-674
Statistical Tables of Capital Stock, Bonds, Liabilities, Cost, etc., of Railroads.....	13
of Earnings, Expenses, Income, etc.....	14, 15
St. Johnsbury and Lake Champlain Railroad, Inspections and Sketch of.....	57-61
Annual Returns of.....	445-461, 652-668
Switch Lights, Recommended.....	26, 27
Switch, Misplaced, Accident.....	155-158
Sunday Trains, Barre Railroad.....	225, 226
Disturbance, Middlebury.....	266-272
Upper Coos Railroad, Inspections and Sketch of.....	96-98
Annual Returns of.....	462-475
Ventilation of Cars.....	36
Vermont Valley Railroad, Inspections and Sketch of.....	88, 89
Annual Returns of.....	476-489, 675-689
Wages of Employes, Tables of.....	21, 22
Washington Conference, Interstate Commerce and State Commissions.....	39-42
Woodstock Railroad, Inspections and Sketch of.....	100-103
Annual Returns of.....	490-497, 690-696